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FACTORS AFFECTING THE INTERNATIONAL COMPETITIVENESS OF THE UNITED STATES

SCHEDULED FOR HEARINGS

BEFORE THE

COMMITTEE ON WAYS AND MEANS

ON JUNE 4-6 AND 18-20,
AND JULY 16-18, 1991

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INTRODUCTION

The House Committee on Ways and Means has scheduled public hearings on June 4–6 and 18–20, and July 16–18, 1991, on factors affecting U.S international competitiveness. This pamphlet,[1] prepared by the staff of the Joint Committee on Taxation (except for the Congressional Research Service Report included in the Addendum to the pamphlet), provides a discussion and analysis of economic and tax-related issues affecting the international competitiveness of the United States economy.

The main text of the pamphlet is divided into three parts:[2]

(1) *Part One.*—This part provides a discussion and analysis of competitiveness generally, including alternative measures of competitiveness, trends in the competitiveness of the United States, capital and competitiveness, trends in education and human capital, and certain other factors affecting competitiveness.

(2) *Part Two.*—This part provides background information and discusses present-law U.S. tax rules and issues relating to taxation of investment outside of the United States by U.S. persons, including related tax treaty issues.[3]

(3) *Part Three.*—This part provides a description and analysis of a value-added tax and consumption taxes generally, including methods of determining a taxable base under a value-added tax, economic issues under a value-added tax and consumption taxes generally, experience of foreign countries with a value-added tax, and value-added tax administrative issues.

Finally, the Addendum to the pamphlet contains a report prepared by the Congressional Research Service (CRS), Economics Division,[4] at the request of the staff of the Committee on Ways and Means in connection with the hearings. The CRS Report contains economic data and discussion of various non-tax factors affecting U.S. international competitiveness.

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[1] This pamphlet may be cited as follows: Joint Committee on Taxation, *Factors Affecting the International Competitiveness of the United States*, (JCS-6-91), May 30, 1991.

[2] The footnotes, tables, and figures are numbered sequentially within each of the three parts of the text.

[3] Of course, the tax laws of foreign countries also help to determine the income tax treatment of the foreign income of U.S. persons. A detailed discussion of foreign tax laws is beyond the scope of this pamphlet, however. Part Two of the pamphlet does describe some foreign tax laws where they are relevant to an understanding of certain aspects of U.S. treaties affecting the taxation of foreign income of U.S. residents. In addition, Part Two describes recent income tax measures undertaken as a group by the 12 member nations of the European Economic Community.

[4] Congressional Research Service, "International Economic Competitiveness, Trade Performance and U.S. Living Standards," May 28, 1991.

OVERVIEW OF THE PAMPHLET

The following summary of the principal issues and analyses from each of the three parts of the pamphlet[1] is intended to assist the Committee in its review of factors affecting U.S. international competitiveness and to draw attention to particular issues that the Committee may wish to explore.

International competitiveness of the United States

Definitions of competitiveness

- No common definition of competitiveness is employed in policy discussions. Three possible definitions have been highlighted: multinational competitivenesss; trade competitiveness; and standard of living competitiveness.
- Standard of living competitiveness refers to comparisons of the amount of consumption of goods, services, and leisure in the United States with those of other countries and the prospects for future gains in the U.S. standard of living. Standard of living competitiveness is the best measure of a nation's well-being.
- Trade competitiveness refers to the ability of firms located in the United States to sell their output in foreign markets and to compete in domestic markets with output produced in foreign countries. Trade competitiveness generally is measured by the U.S. trade deficit. The trade deficit does not measure a nation's well-being or potential for economic growth; emphasis on the trade deficit as a measure of competitiveness may be misplaced.
- Multinational competitiveness refers to the ability of U.S. multinational firms that locate their production overseas to compete in foreign markets with foreign firms. It does not address the overall international competitiveness of the U.S. economy.

Measures of the U.S. standard of living and the outlook for future growth in the standard of living

- United States per capita gross domestic product (GDP) exceeded $19,000 in 1988. The purchasing power represented by this level of per capita GDP exceeds that of all other countries in the OECD.[2] While the current level of the U.S. standard of living is high, most other major industrialized countries' standards of living have increased relative to the United States'.
- The growth of real per capita GDP may overstate the gains in the standard of living made by the United States in the last twenty years. Much of the growth in per capita GDP appears to have re-

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[1] In addition to the three main parts of the pamphlet, the Addendum contains a report by the Congressional Research Service, which discusses various non-tax, economic factors affecting U.S. international competitiveness.

[2] Measured at the then prevailing exchange rates, the dollar denominated per capita GDP of Japan, Switzerland, and Sweden exceeded that of the United States.

sulted from increased labor force participation rather than from gains in productivity of the existing labor force.

- The rate of net investment as a percentage of GDP in the United States has averaged less than that of most other industrialized countries for the past thirty years, averaging 7.4 percent per year in the United States for the period 1960 to 1989; this compares with a 19.8 percent rate in Japan, 12.7 percent in Germany, 11.7 percent in Canada, and 8.5 percent in the United Kingdom.
- The United States has a low saving rate in comparison to other countries. Over the period of 1960 to 1989 the net saving rate of the United States as a percentage of GDP averaged 7.2 percent per year, while that of Japan averaged 20.7 percent, Germany 14.0 percent, Canada 9.9 percent, and the United Kingdom 7.4 percent.
- The U.S. saving rate has declined in the 1980s from its already relatively low levels, so the United States has needed to borrow from foreigners to finance investment. The decline in saving coupled with net foreign borrowing explains the large trade deficits of the 1980s. The current large Federal budget deficit contributes to a low national saving rate.
- The United States' investment in human capital also appears to be lagging that of other countries. While the fraction of the United States' populace receiving postsecondary education exceeds that of most other countries, many comparative studies question the quality of the education received.

Tax policy and U.S. competitiveness

- Although costs of capital are very difficult to measure, one common explanation for the higher levels of investment in other countries relative to that in the United States is that the United States has a higher cost of capital.
- Recent empirical studies found that tax policy differences do not account for much of the measured difference in international capital costs. The cost of capital may be higher in the United States than elsewhere because the U.S. saving rate has been lower than elsewhere; to the extent that capital has become more internationally mobile, these differences may disappear over time.
- Substantial disagreement exists among economists as to the effect on saving of increases in the net return to saving, and thus whether changes in U.S. tax policy would substantially alter U.S. saving rates.
- Even if a particular tax policy has a strong effect on private saving, national saving is comprised of private and public saving. To the extent that policies to increase private saving increase the size of the Federal budget deficit, at least some of the positive effect on national saving is lost. Most economists agree that deficit reduction increases national saving.

Taxation of investment outside the United States by U.S. persons

- By promoting investment within its borders, a government can increase the productivity of its workforce and, if international investment is taxed at the source, it can increase its tax revenues.
- Three concepts commonly serve as guideposts for discussion of tax policies toward outbound investment:

—*National neutrality.*—This condition is associated with taxation of outbound investment at *higher* rates than domestic investment. This policy favors domestic investment over outbound investment.

—*Capital export neutrality.*—This is associated with taxation of outbound investment at the *same rate* as domestic and outbound investment.

—*Capital import neutrality.*—As a practical matter, this typically is associated with taxation of outbound investment at rates *below* that of domestic investment. This policy favors outbound investment over domestic investment.

- The relative attractiveness of moving the tax system toward any one of these goals depends primarily on the response of domestic saving to increased outbound investment.
- Economic analysis can demonstrate that for any capital import-neutral tax policy there is almost always a superior revenue-neutral capital export-neutral policy. For example, a $10 billion across-the-board reduction in tax rates on capital income from both foreign and domestic sources is more efficient than a $10 billion reduction in tax rates only for outbound investment.
- The current U.S. tax system displays characteristics of all three principles. Certain provisions favor domestic investment over outbound investment, while others favor outbound investment over domestic investment.
- Implementation of a pure capital import-neutral tax system would relinquish to foreign governments control over the U.S. tax treatment of outbound investment by U.S. persons.
- Implementation of a pure capital export-neutral tax system would relinquish to foreign governments tax jurisdiction over U.S. income of U.S. persons.
- Replacing the foreign tax credit with a deduction for foreign taxes would discourage outbound investment and, to the extent domestic investment increases, could increase domestic employment. However, this policy would reduce worldwide welfare and, since it would likely be met with retaliation by foreign governments, ultimately likely would reduce national economic welfare.

Value-added taxes

- In general, a value-added tax (VAT) is a tax on consumption that is collected by imposing tax on the "value added" at each stage in the production and distribution of goods and services.
- The amount of value added generally can be determined under the credit-invoice method (which relies on sales and purchase invoices and which is used by nearly all countries that have adopted a VAT), or the subtraction or addition methods (which rely on accounting records).
- A single-rate VAT that applies to all consumption generally is considered administratively simpler and economically more efficient than a multiple-rate VAT or a VAT that exempts particular goods and services.
- Economists generally believe that the economic effects of any VAT are similar to that of other consumption taxes, regardless of whether the value added is determined under the credit-invoice method or under the subtraction or addition methods. In addition,

it is generally agreed that despite the mechanical differences, the credit-invoice method and the addition and subtraction methods have roughly the same impact on saving, international trade, and the distribution of income.

- Unlike an income tax, a VAT does not tax the return to saving. Therefore, to the extent a VAT is used to replace an income tax, it may increase saving.
- Like any broad-based consumption tax, a VAT generally is considered a regressive tax. This regressivity may be offset through increases in means-tested transfer payments or through a refundable income tax credit. Preferential treatment of necessities under a VAT does not efficiently alleviate the regressivity of a VAT.
- Border tax adjustments common to most value-added taxes appear to provide incentives for exports or disincentives to imports. However, border tax adjustments neither promote nor discourage international trade.
- During the past 25 years, approximately 50 countries, including Canada, Japan, Mexico, the United Kingdom, and nearly all other major trading partners of the United States, have enacted some form of a value-added, consumption-based tax. The relative reliance of foreign countries on consumption taxes, such as the VAT, as a source of government revenue is much greater than the reliance of the United States on such taxes.

PART ONE: *

DISCUSSION OF THE COMPETITIVENESS OF THE UNITED STATES ECONOMY

I. GENERAL OVERVIEW OF COMPETITIVENESS

A. Definitions of Competitiveness

Over the last decade, policymakers, business groups, and economists have argued that improving the international competitiveness of the economy of United States should be a major policy goal. This increased focus on competitiveness is certainly related to some of the economic trends of the 1980s: unprecedented large U.S. trade deficits, large inflows of foreign investment in the U.S., and low national saving rates. Although the term "competitiveness" is used frequently, it does not have a consistent definition. This section explores various meanings commonly given to the term "competitiveness" in recent writings on U.S. economic policy.

Trade competitiveness

One definition of competitiveness is the ability of firms located in the United States to sell their output in foreign markets and to compete in domestic markets with output produced in foreign countries. Competitiveness in this sense is measured by the U.S. trade deficit.

Standard of living competitiveness

A second definition of competitiveness does not focus specifically on international trade and investment. Instead, this measure of competitiveness compares the current U.S. living standard and the prospects for future U.S. living standards with those of other countries. This measure focuses on the productivity growth of U.S. labor and the saving rate of the United States, because both of these factors affect future living standards. According to this concept of competitiveness, policy goals should not focus primarily on either the trade surplus or deficit, nor on capital flows between nations, though both of these may be useful as indicators of the success of more fundamental policies. The President's Commission on Industrial Competitiveness emphasizes standards of living as an important measure of competitiveness:

> Competitiveness is the degree to which a nation can, under free and fair market conditions, produce goods and services that meet the test of international markets while si-

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* For a discussion of background and issues relating to taxation of investment outside of the United States by U.S. persons, see Part Two of this pamphlet. See Part Three for a discussion of value-added taxes.

multaneously maintaining or expanding the real income of its citizens.[1]

Multinational competitiveness

A third definition of U.S. competitiveness is the ability of U.S. multinationals (firms headquartered in the United States that operate abroad) that locate production facilities overseas to compete in foreign markets. Overseas production facilities owned by U.S. interests may compete with firms owned by residents of the host country or with multinational firms based in other countries. This definition of competitiveness focuses on the after-tax returns to investments in production facilities abroad.

B. Evaluating Alternative Measures of Competitiveness

National income accounting

In order to evaluate each of these definitions of competitiveness, it is important to understand the economic relationships between them. Trade deficits, capital inflows, investment, savings, and income are all connected in the economy. These connections can be examined through the national income and product accounts, which measure the flow of goods and services (product) and income in the economy.[2]

The value of an economy's total output must be either consumed domestically (by private individuals and government), invested domestically, or exported abroad. If an economy consumes and invests more than it produces, it must be importing goods from abroad. In order to pay for those imports, the country sells some of its assets. Thus, an economy that runs a trade deficit will also experience foreign capital inflows as foreign persons purchase domestic assets.

For example, when the United States imports more than it exports, the United States pays for the imports with dollars. If foreigners are not buying goods with the dollars, then they will invest the dollars in U.S. assets. (An alternate way of viewing these relationships is that dollars flowing out of the economy in order to purchase goods or to service foreign debt must ultimately return to the economy as payment for exports or as net investment.)

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[1] President's Commission on Industrial Competitiveness, *Global Competition, The New Reality*, Vol. 1, January 1985, p. 6.

[2] The national income and product accounts measure the flow of goods and services (product) and income in the economy. The gross national product (GNP) of the economy is the total annual value of goods and services produced by the economy and may be measured in several ways. One way is to measure GNP by expenditure on final product. By this measure,

(1) $GNP = C + I + G + (X-M) + NI$.

Equation (1) is an accounting identity which states that gross national product equals the sum of consumption expenditures (C), private investment expenditures on plant, equipment, inventory, and residential construction (I), government purchases of goods and services (G), net exports (exports less imports of goods and services and net interest payments to foreigners, or X−M) and net investment income (NI, or the excess of investment income received from abroad over investment income sent abroad).

An alternative is to measure GNP by the manner in which income is spent. By this measure,

(2) $GNP = C + S + T$.

Equation (2) is another accounting identity which states that gross national product equals the sum of consumption expenditures, saving by consumers and businesses (S) and net tax payments to the government (T) (net tax payments are total tax receipts less transfer, interest, and subsidy payments made by all levels of government).

Because both measures of GNP are simple accounting identities, the right hand side of equation (1) must equal the right hand side of equation (2). From this observation can be derived an additional national income accounting identity.

(3) $I = S + (T - G) + (M - X) - NI$

This is the basis for the statement that national investment equals private saving (S), plus public saving (T − G) and net imports (M − X), less net investment income.

Net foreign borrowing is also used to finance domestic investment. Since domestic investment must be financed either through national saving or foreign borrowing, net foreign borrowing must also equal the difference between domestic investment and saving.

These relationships can be summarized as follows (the equation ignores relatively small unilateral transfers such as foreign aid):

$$\text{Net Foreign Borrowing} = \text{Investment} - \text{Saving}$$
$$= (\text{Imports} - \text{Exports}) - \text{Net Investment Income}$$

where imports and exports include both goods and services, and net investment income is equal to the excess of investment income received from abroad over investment income sent abroad. The excess of imports over exports is called the trade deficit in goods and services. Net investment income can be viewed as payments received on previous foreign investments less payments made to service foreign debt.

Thus, if the investment in an economy is larger than that country's saving, the country must either be running a trade deficit or servicing previously acquired debt (i.e., the economy is increasing its borrowing in order to service its debt). Similarly, a country cannot run a trade surplus without also exporting capital, either by increasing its foreign investments, or by servicing previously acquired foreign debt. Because the level of net investment income in any year is fixed by the level of previous foreign investment (except for changes in interest rates), changes in investment or saving that are associated with capital inflows will have a negative impact on a country's trade balance.

Trade competitiveness

A trade deficit is not necessarily undesirable. For example, if a country uncovers profitable investment opportunities, then it will be in that country's interest to obtain funds from abroad to invest in these profitable projects.[3] In this situation, investment will exceed saving, and the initial effect of the foreign capital inflow will be a trade deficit. For example, suppose new oil reserves which could be profitably recovered through increased investment are discovered in the United States. The investment may be financed by foreigners. In order to invest in U.S. assets, foreigners will have to buy dollars, thus increasing the value of the dollar. This dollar appreciation makes U.S. goods more expensive to foreigners and foreign goods cheaper for U.S. residents, resulting in a trade deficit. Eventually, the flow of capital will be reversed, as the U.S. demand for new investment falls, and foreigners receive interest and dividend payments on their investments.

The foreign borrowing in the above example was used to finance investment. This borrowing did not reduce the living standards of current or future U.S. residents, because the interest and dividends that were paid to foreigners came from the return from the new investment. If foreign borrowing finances consumption instead of investment, there are no new assets created to generate a return which can support the borrowing; when the debt is eventually repaid, the repayments will come at the expense of future consumption. For instance, consider a situation in which the domestic supply of funds for investment decreases because domestic saving rates fall. Foreign borrowing in this case is not associated with increased investment, but is instead devoted to investment that was previously financed with domestic savings. Because the foreign borrowing is not associated with increased investment, future output does not increase, and interest and dividends on the investment will be paid at the expense of future consumption. In this case, there may be an increase in the standard of living for current U.S. residents at the expense of a decrease in the standard of living of future residents.

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[3] This scenario describes the experience of the United States in the mid to late 1800s, when foreign capital inflows financed much of the investment in railroads and other assets.

During the period that foreign borrowing finances U.S. consumption, the United States runs a trade deficit. Although the United States could service its growing foreign debt by increased borrowing, and hence larger trade deficits, in the long run, trade deficits cannot keep growing. In fact, the United States must eventually run a trade surplus in order for the foreign debt to stabilize relative to GNP. If the United States imported more goods than it exported every year, then there would also be an inflow of foreign capital every year. This capital inflow would be growing with the increasing costs of servicing the foreign debt. Eventually, foreigners would be unwilling to continue lending to the United States, and the value of the dollar would fall. The fall in the dollar would eliminate the trade deficit, and the United States would eventually run a trade surplus, so that the current account deficit (the sum of the trade deficit in goods and services and the net interest on foreign obligations) would be small enough for foreigners to want to finance.

Even when foreign investment finances domestic consumption, trade deficits and capital inflows themselves should not be viewed as undesirable, because the foreign capital inflows help to keep domestic investment, and hence labor productivity, from falling. For instance, the large inflow of foreign capital to the United States in the 1980s is widely viewed to be a result of low U.S. saving rates. If the mobility of foreign capital had been restricted (through capital or import controls, for example), then the low saving rate could have led to higher domestic interest rates and lower rates of investment. That decreased investment would have led to large decreases in future living standards because the lower growth rate of the capital stock would have resulted in lower growth rates of U.S. labor productivity. The fact that foreign capital was not restricted and did finance U.S. investment helped mitigate the negative effects on economic growth of decreased domestic saving.

However, the capital inflows of the 1980s had different effects on different industries. By increasing the value of the dollar, the capital inflows hurt those industries that are sensitive to exchange rates (i.e., those industries that produce exports or compete with imports), but by mitigating the effects of the low saving rates on interest rates, the capital inflows helped industries that are sensitive to interest rates. Furthermore, the appreciation of the dollar benefited consumers who were able to purchase goods from abroad more cheaply.

Some argue, however, that the U.S. saving rate might not have continued to fall had there been no foreign capital inflows. Because the capital inflows permitted the United States to increase consumption without bearing immediate costs, the United States was slow to recognize that this increased consumption was at the expense of future living standards. If restrictions on capital inflows would have increased U.S. saving rates, then it is possible that investment would not have been greatly reduced had there been smaller foreign capital inflows.

Standard of living competitiveness

The above observations argue that the trade deficit does not in itself provide a useful measure of international competitiveness, since trade deficits and trade surpluses can be either good or bad for the United States. Thus, a more useful concept of competitiveness may be one that measures a nation's ability to maintain acceptable standards of living, both in the present and in the future. Current standards of living do not provide a sufficient measure of competitiveness because, as was discussed above, a nation can maintain high standards of living for a fairly long time by running large trade deficits. Eventually, however, large trade deficits that finance consumption will reduce a nation's standard of living.

There are a number of situations in which standard of living competitiveness is increased, but trade competitiveness may not be. The example of oil discovery discussed above showed that even increases in a country's stock of exportable goods can have ambiguous effects on the trade deficit. If the discovery of oil also increases the demand for investment, then the trade deficit may actually increase in the short run.

Increases in natural resources, advances in technology, increases in worker efficiency, and other wealth-enhancing innovations have ambiguous effects on the trade deficit in the short and medium run. Because these innovations increase the productivity of U.S. workers and lower production costs, they increase the attractiveness of U.S. goods, and may result in increased exports. To the extent these innovations increase the demand for investment, however, they can have the opposite effect on the trade deficit. Nonetheless, each of these innovations increases the standard of living competitiveness of the United States, since each of these increases the output of the economy, and hence the incomes of U.S. residents.

Multinational competitiveness [4]

The third definition of competitiveness—multinational competitiveness—has also been a subject of discussion in U.S. policy debates. Multinational investments in foreign countries are subject to local taxation in the foreign country, and often are also subject to residual taxation in the residence country. Residual U.S. taxation (in the case of a U.S. multinational) may apply differently than residual taxation by another capital-exporting country (in the case of a multinational enterprise of that country). Some argue that this puts the U.S. multinationals at a competitive disadvantage. If U.S. multinationals were exempted from the U.S. corporate tax (in order to treat multinationals the same as foreign firms), substitution of foreign investment for domestic investment could be encouraged. For example, instead of manufacturing products in the United States and exporting them abroad, a firm might choose to both produce and sell the products abroad.

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[4] Part Two of this pamphlet discusses present law and issues relating to taxation of investment outside of the United States by U.S. persons.

This definition of competitiveness refers more to the competitiveness of certain types of firms relative to other types. It does not provide a measure of the overall international competitiveness of the U.S. economy.

C. Policies to Increase Competitiveness

Competitiveness and investment

Increases in investment in the United States increase the future standard of living by increasing the productivity of U.S. labor. As the U.S. capital stock increases, real wages and other compensation tend to increase, and the real incomes of U.S. workers increase.

Although increases in investment increase the future standard of living, increased investment that is not financed by increased saving will actually increase the U.S. trade deficit.[5] If investment in the United States increases, but domestic saving does not, then the investment must be financed by foreigners. This increased capital inflow increases the value of the dollar relative to other currencies and increases the trade deficit as U.S. goods become more expensive in foreign markets. As the national income identity discussed above showed, any increase in imports of capital from overseas (for example, to fund increased investment in the United States) is matched dollar for dollar by an increase in the trade deficit.

The investment rate of the United States has been consistently lower than the investment rate of other countries. One possible explanation for the differences in investment rates is that the United States faces a higher cost of capital than other countries. Although costs of capital are difficult to measure correctly, some studies have found that the U.S. cost of capital is higher than that of some European countries and that of Japan. Theoretically, international differences in costs of capital could be due to differences in the taxation of capital income. However, recent studies suggest that it is unlikely that taxes vary enough internationally to fully explain the observed difference in the cost of capital. This does not imply, however, that changes in tax policy would not affect the cost of capital.

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[5] Despite this fact, business interests often cite trade competitiveness as a reason to increase investment incentives. For a discussion of this point, see Lawrence Summers, "Tax Policy and International Competitiveness," *International Aspects of Fiscal Policies*, University of Chicago Press, 1988.

Competitiveness and saving

Increases in the U.S. saving rate, either through increased private saving or decreased public borrowing, increase the future standard of living of the United States because current consumption is traded for future consumption. Furthermore, because international capital may not be completely mobile (foreigners investing in the United States may incur greater costs and risk than they would investing in their own countries), and because the United States is large enough that increases in the U.S. saving rate can lower world interest rates, increased saving will generally increase domestic investment. Increased investment leads to increased labor productivity and higher future income, leading to increases in future living standards.

Increased U.S. saving will also help to reduce the trade deficit. If the U.S. saving rate increases, then inflows of foreign capital will decrease, and the dollar will fall. This depreciation of the dollar will make U.S. goods relatively cheaper for foreigners, and foreign goods relatively more expensive for U.S. residents. Thus, exports will increase, imports will decrease, and the trade deficit will decline.

In general, the U.S. saving rate has been below that of other countries. Furthermore, saving rates in the United States fell substantially in the 1980s, due to decreases in both public and private saving.

The most direct way for government to affect the level of saving in the economy is by reducing public borrowing (that is, by reducing the Federal deficit.) The government may also be able to affect private savings by changing tax policies. However, tax policy changes that increase private saving but also increase the Federal budget deficit may not increase total national saving.

Competitiveness and labor

Increased investment in education and training of the U.S. workforce has effects similar to those of increased investment in physical capital. Investment in human capital directly increases the productivity of U.S. labor and will therefore tend to increase the real wages of workers. If increased investment in human capital is not matched by an increase in saving, then, as with increased investment in physical capital, the trade deficit will also increase.[6]

Competitiveness and natural resources

Natural resource deposits within the borders of a nation provide a source of wealth to that nation. Nations with large endowments of natural resources may be internationally competitive in the sense that their residents may have a high standard of living. However, the stock of a nation's natural resources may not affect the growth rate of a nation's standard of living. For example, although the natural resource endowment of the United States is undoubtedly one of the explanations for its high living standard, this resource endowment does not alleviate concerns about the growth rate in U.S. living standards. Discoveries of new natural resources, or technological advances that increase the value of natural resources, however, can affect the growth rate of the economy over the short run.

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[6] Because the national income and product accounts do not treat education expenditures as investment or saving, this relationship with increased trade deficits is not readily apparent. The mechanism is as follows. When increases in education expenditures are financed by decreases in other consumption expenditures, this is equivalent to an increase in saving, and the trade deficit will not increase. If, on the other hand, education expenses are financed out of savings, so that other consumption expenditures do not decrease when education expenditures increase, then the new investment in human capital will result in an increase in the trade deficit.

The existence of natural resource deposits in a nation may imply a lower cost of these resources in the production process (at least to the extent of reduced transportation costs). In a similar manner, lower energy costs may provide an economy with a competitive advantage in the production of energy-intensive goods. Nations with large endowments of energy would thus be expected to produce and export energy-intensive goods and import less energy-intensive goods.

Competitiveness and technology

Advances in technology can increase the efficiency of production as well as improve the quality of products. By increasing the economy's output, technological advances increase the standard of living. However, unlike improvements in labor force quality or increases in domestic capital, advances in technology can often be easily transferred overseas. Technological advances therefore may not increase the U.S. standard of living relative to the standard of living of other countries that can also exploit the technology.

Competitiveness and government regulation

Government regulations may increase business costs and reduce the measured productivity of U.S. workers. However, because official measures of output do not measure the value of reductions in environmental damage or of increases in safety, government regulations may affect measured productivity costs without lowering the actual productivity of workers. Government regulations that correct market failures will increase the social efficiency of production. For example, market failures arise because firms generally do not face the full costs of the environmental damage they cause, and so will often choose to operate in a way that causes more environmental damage than is socially optimal.

For example, U.S. regulations may encourage firms to produce certain goods abroad. For example, goods whose production causes large environmental costs may be produced abroad because of U.S. environmental regulations. If other countries are more willing to accept environmental damage than is the United States, then the United States may benefit when these goods are produced abroad. However, if production in other countries can affect the U.S. environment (for example, if it causes global warming), then the United States may not be better off if production of regulated industries is exported abroad.

II. TRENDS IN THE COMPETITIVENESS OF THE UNITED STATES

A. Measurement of Productivity and National Welfare

Per capita GDP

The most basic measure of the level of national welfare is per capita gross national product (GNP) or per capita gross domestic product (GDP).[7] By these measures, the United States is an economically successful country. Table 1 provides a comparison of 1988 per capita GDP of the United States, with that of several other countries. The table uses two different measures. The first converts the per capita GDP for each country to U.S. dollars by using the average 1988 dollar exchange rate of that country's currency. Because exchange rates do not always reflect the relative price levels of different countries, particularly in the 1980s when exchange rates were unusually volatile, some argue that intercountry comparisons of output should measure the purchasing power of different countries (known as "purchasing power parity"). The second comparison in Table 1 provides one measure of the 1988 per capita purchasing power of the various countries.

Using the exchange rate method, the United States has the fourth highest per capita GDP of the countries listed. Under the purchasing power parity method, the United States has the highest per capita GDP.

Per capita GDP shows a country's standard of living for a single year. Growth rates of per capita GDP show the rate at which a country's standard of living has improved. To place the United States in an international context, data are presented below on the growth rate of real per capita GDP,[8] wages, and productivity.

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[7] Gross Domestic Product (GDP) of a country is the value of all marketed goods and services produced in that country. Gross National Product (GNP) is GDP plus the net factor income received by residents of that country from abroad. Thus wages earned by a U.S. resident from temporary work abroad constitutes part of GNP but not GDP. Similarly, the returns from investment abroad constitute part of GNP but not GDP. Conceptual shortcomings of GNP or GDP as a measure of national welfare are discussed in section V. C., below.

[8] Real per capita GDP is calculated by deflating each country's nominal per capita GDP denominated in its own currency by each country's inflation rate.

Table 1.—1988 Per Capita Gross Domestic Product (GDP) of Selected Countries

[In dollars]

Country	Per capita GDP	
	Computed using OECD 1988 exchange rate [1]	Penn World Table V purchasing power parity [2]
United States	19,715	19,851
Japan	23,226	13,645
West Germany	19,560	14,621
France	17,107	13,584
United Kingdom	14,616	13,060
Italy	14,653	13,001
Canada	18,969	17,681
Belgium	15,275	13,005
Greece	5,290	6,436
Netherlands	15,401	12,684
Sweden	21,545	14,941
Switzerland	27,498	17,763
Australia	15,935	14,529

[1] Exchange rate based on average daily rate for the year 1988. Source: OECD, *National Accounting, 1960-89*, Volume 1, 1989, and OECD, *Labor Force Statistics, 1968-1988*, 1990.

[2] National currency expenditures are converted to an international, dollar-denominated currency to make real quantity comparisons across countries. The international, dollar-denominated currency is a weighted average of the relative prices for the same goods in all countries. Source: Robert Summers, and Alan Heston, "The Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988," *Quarterly Journal of Economics*, Vol. 106, May 1991.

Growth of real per capital GDP

The growth rate of real per capita GDP may be the most direct measure of the rate of improvement in a country's standard of living. Figure 1 below compares the average annual growth rates of real per capita GDP for selected countries for the period 1969 to 1988.

As Figure 1 displays, the United States ranks near the bottom of the countries shown.[9] United States real per capita GDP growth averaged less than 1.8 percent per year from 1960 to 1989 compared to 2.2 percent for the United Kingdom, 2.9 percent for Canada, and 4.1 percent for Japan.

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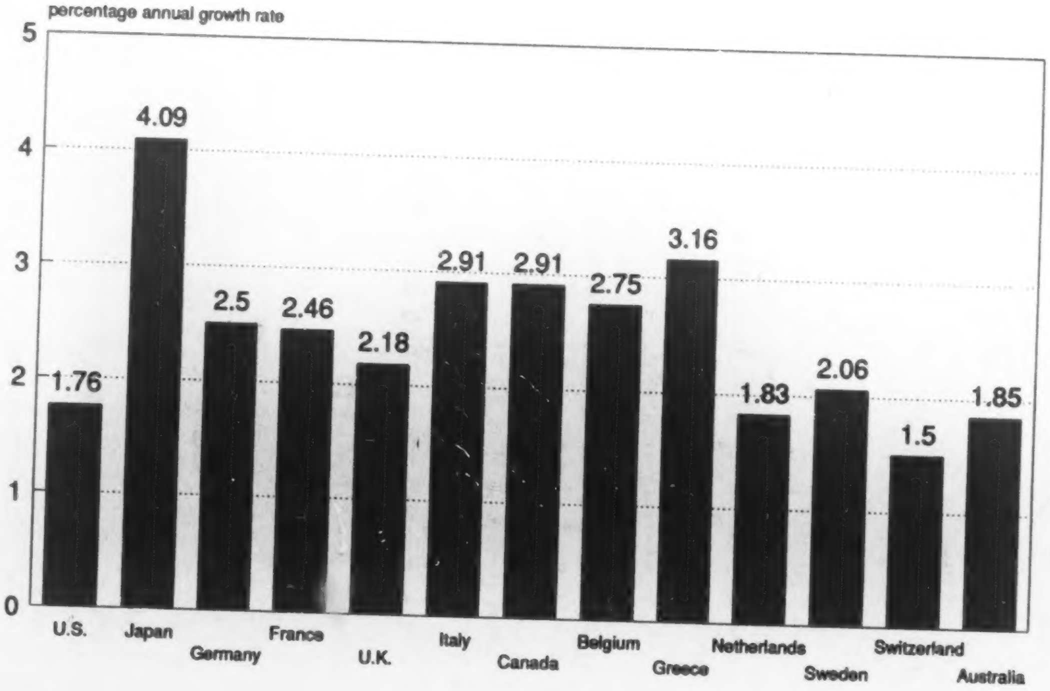
[9] See Appendix Table 1 for data by subperiod. Partly because the United States recovered from the recession in the early 1980s more robustly than did other countries, the rate of per capita GDP growth in the United States in the second ten years, while slightly below its rate for the first ten years, is close to the median of this group of countries in the second ten years.

Figure 1



Average Annual Growth Rates
of Per Capita GDP
1969-1989

Growth in labor force participation

The growth rate of GDP per capita is equal to the sum of the growth rate of labor force participation and the growth rate of output per worker (productivity growth). To the extent that GDP growth is due to increased labor force participation, the growth rate of per capita GDP may overstate the increase in economic well-being of a society. An increase in labor force participation implies a contemporaneous decline in leisure time and services produced in the home. While leisure time and home-produced services clearly have value, they are not measured as part of GDP. Consequently, gains in GDP may mask losses of home-produced services and overstate economic well-being.[10] By examining labor force participation directly one can distinguish between the role of growth of labor force participation and productivity growth in determining GDP growth. Table 2 examines the growth in labor force participation. Table 2 shows that increases in labor force participation in the United States accounted for roughly one half of one percent of GDP growth over the 1980s. Furthermore, the increases in labor force participation in the United States were higher than that in most other countries over both the 1970s and 1980s. Thus, more of the GDP growth of the United States can be attributed to increases in labor force growth than in other countries.

Table 2.—Growth Rates of Labor Force Participation in Selected Countries, 1970–1988

[Average annual percentage rates of change]

Country	1970–79	1980–88	1970–88
United States	0.66	0.60	0.63
Japan	–.04	.14	.05
West Germany	–.38	[1]–.28	[1]–.34
France	.15	–.48	–.15
United Kingdom	.25	.17	.21
Italy	NA	.19	NA
Canada	.94	.78	.86
Belgium	–.12	–.14	–.13
Greece	NA	[2].72	NA
Netherlands	NA	[1].51	NA
Sweden	.89	.25	.59
Switzerland	–.49	NA	NA
Australia	–.04	.46	.20

[1] Through 1986.
[2] Through 1987.

NA=not available.

Source: OECD, *Labour Force Statistics, 1968–88,* 1990.

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[10] For example, if two individuals initially laundered their own clothing, the value of the activity would not be part of GDP, but if they paid each other to launder each other's clothing, the activity would be part of GDP.

Productivity growth in manufacturing

Table 3 examines productivity growth in manufacturing. As the table indicates, manufacturing growth was higher than GDP growth in the United States over the last decade. Because of the large changes in the manufacturing sector during the 1980s (largely associated with the wide fluctuations in the value of the dollar), manufacturing productivity growth may not be representative of the U.S. economy in general over this period. According to the Department of Labor, productivity growth of the non-farm sector of the U.S. economy in general averaged 2.67 percent per year from 1960 to 1969, 1.24 percent per year from 1970 to 1979, 1.10 percent per year from 1980 to 1989, and 1.64 percent per year from 1960 to 1989. Over longer horizons, productivity growth should be similar across industries (as less productive industries contract and more productive industries expand) and manufacturing productivity growth can provide a useful measure of productivity growth in general. As the table indicates, productivity growth in manufacturing in the United States was lower than that of most other countries over the period 1960 to 1989.

Table 3.—Output Per Hour in Manufacturing in Selected Countries, Decadal Averages, 1960s–1980s

[Average annual percentage rates of change]

Country	1960s	1970s	1980s	Average 1960–89
United States	3.1	2.4	3.6	3.0
Japan	10.7	7.2	5.5	7.6
West Germany	6.2	4.5	1.8	4.1
France	6.8	5.0	3.4	5.0
United Kingdom	3.9	2.7	4.7	3.7
Italy	6.6	6.0	4.0	5.4
Canada	4.7	3.0	1.5	3.0
Belgium	5.8	7.4	4.9	6.0
Greece	NA	NA	NA	NA
Netherlands	6.8	6.9	3.4	5.6
Sweden	7.0	3.7	2.2	4.1
Switzerland	NA	NA	NA	NA
Australia	NA	NA	NA	NA

NA=not available.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, "Output per Hour, Hourly Compensation, and Unit Labor Costs in Manufacturing, Fourteen Countries or Areas, 1960–1989," April 1991.

Growth in real wages

Table 4 below reports annual real wage growth over the period 1960 to 1980 for selected countries. Over the long run, rising real wages are associated with increases in worker productivity, whereas stagnant real wages are associated with stagnating productivity growth.

Table 4.—Annual Growth Rates of Real Hourly Compensation in Manufacturing in Selected Countries,[1] Decadal Averages, 1960s–1980s

Country	1960s	1970s	1980s	Average 1960–89
United States	2.1	1.3	0.0	1.1
Japan	7.8	5.4	2.0	4.9
West Germany	6.4	5.9	2.1	4.7
France	5.2	5.5	2.0	4.2
United Kingdom	2.9	4.4	2.0	3.1
Italy	6.4	6.7	1.3	4.7
Canada	2.7	2.8	.6	2.0
Belgium	6.2	6.8	1.0	4.6
Greece	NA	NA	NA	NA
Netherlands	7.4	5.7	1.0	4.6
Sweden	5.8	4.3	.6	3.5
Switzerland	NA	NA	NA	NA
Australia	NA	NA	NA	NA

[1] Compensation is in own country currency, deflated by own country consumer prices.

NA=not available.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, "Output per Hour, Hourly Compensation, and Unit Labor Costs in Manufacturing, Fourteen Countries or Areas, 1960–1989," April 1991.

As with GDP and productivity growth, the U.S. wage growth is well below that of most other countries, showing stagnant manufacturing wage growth in the 1980s, and very low growth in the 1970s. While the growth in real wages generally mirrors the growth of labor productivity, real wage growth can differ from productivity growth if the share of non-wage compensation increases (e.g., if employer-provided health benefits increase), or in the short-run, if there is a shift in the distribution of income between labor and capital.

B. Trends in the United States' Balance of Payments

The evidence in the preceding sections indicates that, while still at a high level, the standard of living of the United States is declining relative to other countries.

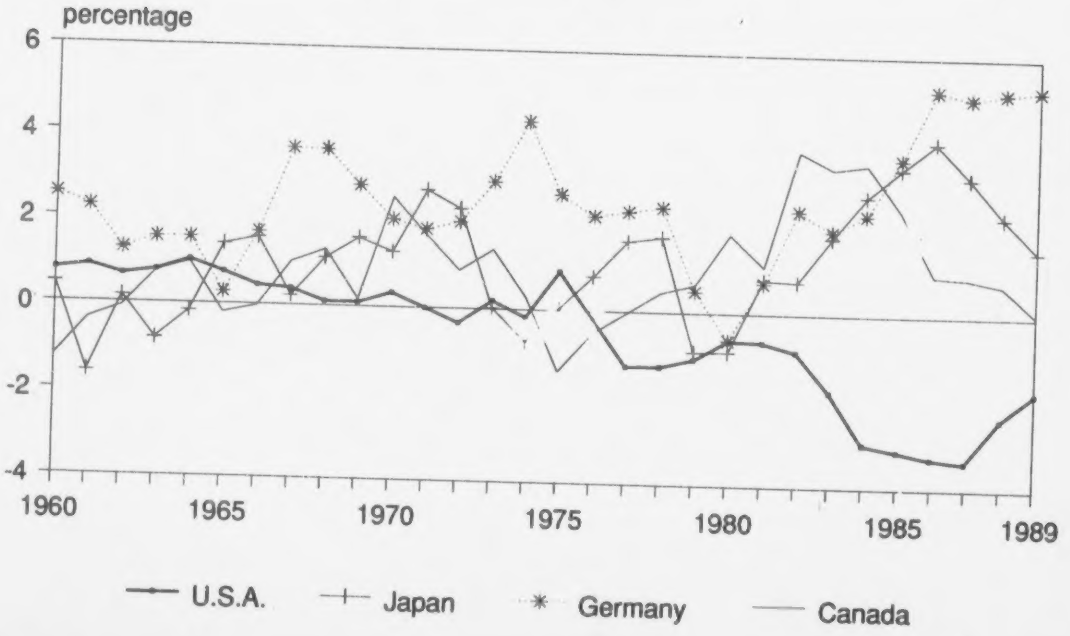
This section shows that trends in the recent growth rate of U.S. income may understate the expected decline in U.S. living standards, because much of the growth over the past decade was due to investment financed by foreign savings. As was argued in section I.B., above, servicing this foreign debt in the future will require a slowdown in the rate of growth of future consumption of U.S. residents.

While the rapid growth of both foreign-held assets in the United States and U.S.-held assets abroad is symptomatic of the increasing integration of the global economy, the change in the net international position of the United States is directly related to the change in the U.S. trade balance in the 1980s. As has been widely reported, the merchandise (goods only) trade deficit has been over $100 billion per year since 1984. The current account as a whole, which compares exports of goods, services, and net interest income to imports (plus unilateral remittances), was positive as recently as 1981, but has been in deficit by over $100 billion per year since 1984 as well.

Figure 2 presents the net exports of goods and services as a percentage of GDP for the period 1960 to 1989 for the United States, Canada, Japan, and Germany. (Net exports are a positive entry, net imports a negative entry.) Scaling the trade surplus or deficit relative to GDP shows a country's trade deficit or surplus relative to the size of the country's economy. Since 1960, the United States has changed from a modest net exporter (net exports less than one percent of GDP) to a large net importer (net imports in excess of three percent of GDP in 1985 through 1987). Since 1965, with the exception of the years immediately following the two oil shocks of the 1970s, Germany and Japan have both been net exporters. The net export surpluses of Germany recently have exceeded five percent of GDP. The net export surpluses of Japan have declined from a peak of four percent of GDP in 1986 to 1.5 percent of GDP in 1989.

Figure 2

Net Exports as a Percentage of GDP
1960-1989



Source: OECD

The balance of payments accounts, presented in Table 5, are analogous to a sources and uses of funds statement of the United States with the rest of the world. As demonstrated in the accounting identity in section I.B., above, the current account balance, which consists primarily of the trade balance, should be exactly offset by the capital account balance, which measures the net inflow or outflow of capital to or from the United States. Serious problems of measurement cause the accounts to be somewhat mismatched in practice, but basic patterns are unlikely to be significantly distorted by these problems.

Table 5.—International Transactions of the United States, Selected Years

[In billions of dollars]

Category	Average 1980–85	1986	1987	1988	1989	1990
Current Account Balance	−$43.1	−$133.2	−$143.7	−$126.5	−$110.0	−$99.4
Exports of Goods and Services	358.8	392.0	446.1	529.8	603.2	648.7
Merchandise	218.4	223.4	250.3	319.3	360.5	389.3
Services	58.1	80.0	91.2	102.8	115.2	130.6
Receipts from U.S. assets abroad	82.4	88.6	104.7	107.8	127.5	128.8
Imports of Goods and Services	391.6	509.4	575.6	641.7	698.4	727.0
Merchandise	283.6	368.4	409.8	446.5	475.2	498.0
Services	52.6	74.0	83.4	89.7	94.7	107.7
Payments on foreign-owned U.S. assets	55.3	67.0	82.4	105.5	128.5	121.3
Unilateral Transfers	10.3	15.8	14.2	14.7	14.7	21.1
Capital Account Balance	22.0	121.9	141.8	137.2	87.6	26.2
Foreign Investment in the U.S.	92.1	221.6	218.0	219.3	214.7	87.5
Direct investment	18.7	34.1	46.9	58.4	72.2	25.7
Private non-direct investment	68.0	151.9	126.1	122.0	133.7	31.0
Official	5.3	35.6	45.2	38.9	8.8	30.8
U.S. Investment Abroad	70.5	99.7	76.2	82.1	127.0	61.3
Direct investment	8.0	26.3	44.2	17.5	31.7	36.4
Private, non-direct investment	53.2	71.6	42.2	64.0	71.2	25.7

Increase in government assets	9.4	1.7	−10.1	.6	24.1	−.8
Allocation of Special Drawing Rights	.4	.0	.0	.0	.0	.0
Statistical Discrepancy	21.1	11.3	1.9	−10.6	22.4	73.0
Note: Merchandise and Services Trade Balance	−59.7	−139.0	−151.7	−114.1	−94.2	−85.8

Source: Russell Krieger. "U.S. International Transactions, First Quarter, 1989." *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, June, 1989, pp. 62–63, and Christopher L. Bach, F "U.S. International Transactions, Fourth Quarter and Year 1990." *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, March 1991, pp. 34–68.

C. Foreign Investment in the United States [11]

Growth in foreign-owned assets in the United States

The amount of foreign-owned assets in the United States grew more than 700 percent between 1975 and 1988 and more than three fold since 1980.[12] The total amount of foreign-owned assets in the United States exceeded $1.7 trillion by the end of 1988. The recorded value of U.S.-owned assets abroad grew less rapidly during the same period. The Department of Commerce reports that in 1975 the amount of U.S.-owned assets abroad exceeded foreign-owned assets in the United States by $74 billion. By the end of 1988, however, the situation had reversed, so that the amount of foreign-owned assets in the United States exceeded U.S.-owned assets abroad by $532 billion. Because these investments are measured by their book value, some argue that the market value of U.S.-owned assets abroad is similar to or greater than the value of foreign-owned assets in the United States, if they were measured accurately.[13] Whether this argument is correct regarding the current net investment position, it is clear that foreign-owned U.S. assets are growing more rapidly than U.S.-owned assets abroad.

Foreign assets in the United States (and U.S. assets abroad) can be categorized as direct investment, non-direct investment (often referred to as portfolio investment), and official assets. Direct investment constitutes assets over which the owner has direct control. The Department of Commerce defines an investment as direct when a single person owns or controls, directly or indirectly, at least 10 percent of the voting securities of a corporate enterprise or the equivalent interests in an unincorporated business. Foreign persons held direct investments of $328.9 billion in the United States in 1988, having grown from $83.0 billion in 1980.

The largest category of investment is non-direct investment held by private (non-governmental) foreign investors, commonly referred to as portfolio investment. This category consists mostly of holdings of corporate equities, corporate and government bonds, and bank deposits. The portfolio investor generally does not have control over the assets that underlie the financial claims. In 1988, portfolio assets of foreign persons in the United States were more than triple the recorded value of direct investment, $1,135 billion compared to $329 billion, respectively. Bank deposits account for well over half of this total, and reflect partially the increasingly global nature of banking activities. Foreign investment in bonds and bank deposits, like other types of financial investment, provide a source of funds for investment in the United States but also represent a claim on future resources.

The final category of foreign-owned U.S. assets is official assets: U.S. assets held by governments, central banking systems, and certain international organizations. The foreign currency reserves of other governments and banking systems, for example, are treated as official assets. Levels of foreign-held official assets have grown more slowly than foreign-held direct and non-direct investment of private investors.

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[11] For a more complete discussion of foreign investment in the United States, see Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS-1-90), January 23, 1990.

[12] All values in this paragraph and the following three paragraphs are obtained from Russell Scholl, "The International Investment Position of the United States in 1988," *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, June 1989, p. 43.

[13] Some commentators also have observed that the statistical discrepancies in the trade data are becoming large enough to question any conclusions which might be drawn from it. See "Statistical Discrepancy" in Table 5, above.

Investment by U.S. persons abroad has grown from $295.1 billion in 1980 to $1,253.7 billion in 1988. This growth has not been as rapid as investment by foreign persons in the United States.

Foreign direct investment in the United States

Much of the public attention directed to foreign investment in the United States has focused on the direct investment component, often because of concern over control exercised by foreign persons. As mentioned above, direct investment represents assets over which the foreign investor likely has some level of control.

Foreign direct investment is measured by two different methods. The first method measures direct investment by reference to the amount foreign persons invest in U.S. businesses through the purchase of stock, lending of money, or reinvestment of earnings. This is the method used for purpose of the balance of payments accounts. This measure represents the financial investment of foreign investors in the United States.

The second method measures the amount of assets that are under the control of foreign investors. This method may provide a more accurate measure of the effect that the foreign control of assets may have on the United States. For example, under this method, if a foreign acquirer pays $100 for a company with $200 of assets (and $100 of liabilities), this measure would report $200 of direct investment assets. Under the balance of payments method, the direct investment is $100.

U.S. affiliates of foreign companies or investors accounted for 13.2 percent of all U.S. manufacturing assets and 7.3 percent of U.S. manufacturing employment in 1987.[14] Foreign direct investment is concentrated in manufacturing, so that overall 3.6 percent of U.S. employees (3.159 million) worked for U.S. affiliates of foreign companies in 1987. These figures represent averages; the concentration of foreign ownership may be higher or lower in specific industries.

The role of foreign direct investment is more significant in banking than in most other sectors of the economy. In 1988, U.S. affiliates of foreign banks held over $600 billion in assets, or 19.2 percent of the total for all banks.[15] The foreign percentage is slightly lower for loans and deposits at 16.6 percent and 13.4 percent, respectively.

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[14] All data in this paragraph is from Ned Howenstine, "U.S. Affiliates of Foreign Companies: 1987 Benchmark Survey Results," *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, July 1989, pp. 116-142. Manufacturing, for purposes of this analysis, includes petroleum and coal products. All figures consistently exclude banking activities. Due to definitional issues, a very small percentage of assets and employment attributed to foreign companies have a U.S. person as the ultimate beneficial owner. The term affiliate is used throughout this section in the generic sense to refer to any U.S. business enterprise that meets the definition for direct investment, regardless of the legal form of the enterprise.

[15] Edward Graham and Paul Krugman, *Foreign Direct Investment in the United States*, 1989, p. 21. The figures are obtained from the Federal Reserve Board and are from June 1988.

The stock of foreign direct investment in the United States, as measured by the balance of payments method, totalled $328 billion at the end of 1988. Nearly two-thirds of the total direct investment in the United States was attributable to European countries, 59 percent to countries in the European Community. The United Kingdom was the country with the largest ownership (over $100 billion of investment). Japan, the second largest source of foreign direct investment, accounted for $53 billion or 16 percent of the total. The distribution of banking assets of U.S. affiliates was significantly different from the aggregate as Japanese banks held 52 percent of the total foreign banking assets in the United States.[16]

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[16] *Ibid.*, p. 22.

III. CAPITAL AND COMPETITIVENESS

The preceding sections showed that trends in the growth rate of the U.S. standard of living and the increase in foreign investment in the United States point to a decline in the relative position of the United States compared to other countries. The following sections analyze some of the possible causes of this decline. Low rates of investment and even lower rates of saving may explain some of this decline. Further explanations may include decreases in the level of educational attainment and technical training of the U.S. labor force. The role of tax policy also is discussed.

A. Role of Investment and Saving in International Competitiveness

Investment and economic growth

When an economy's rate of net investment (gross investment less depreciation) increases, the economy's stock of capital increases. A larger capital stock permits greater production of goods and services using a fixed amount of labor. The larger a country's capital stock, the more productive its workers and, generally, the higher its real wages and salaries. Thus, increases in investment tend to cause future increases in a nation's standard of living.

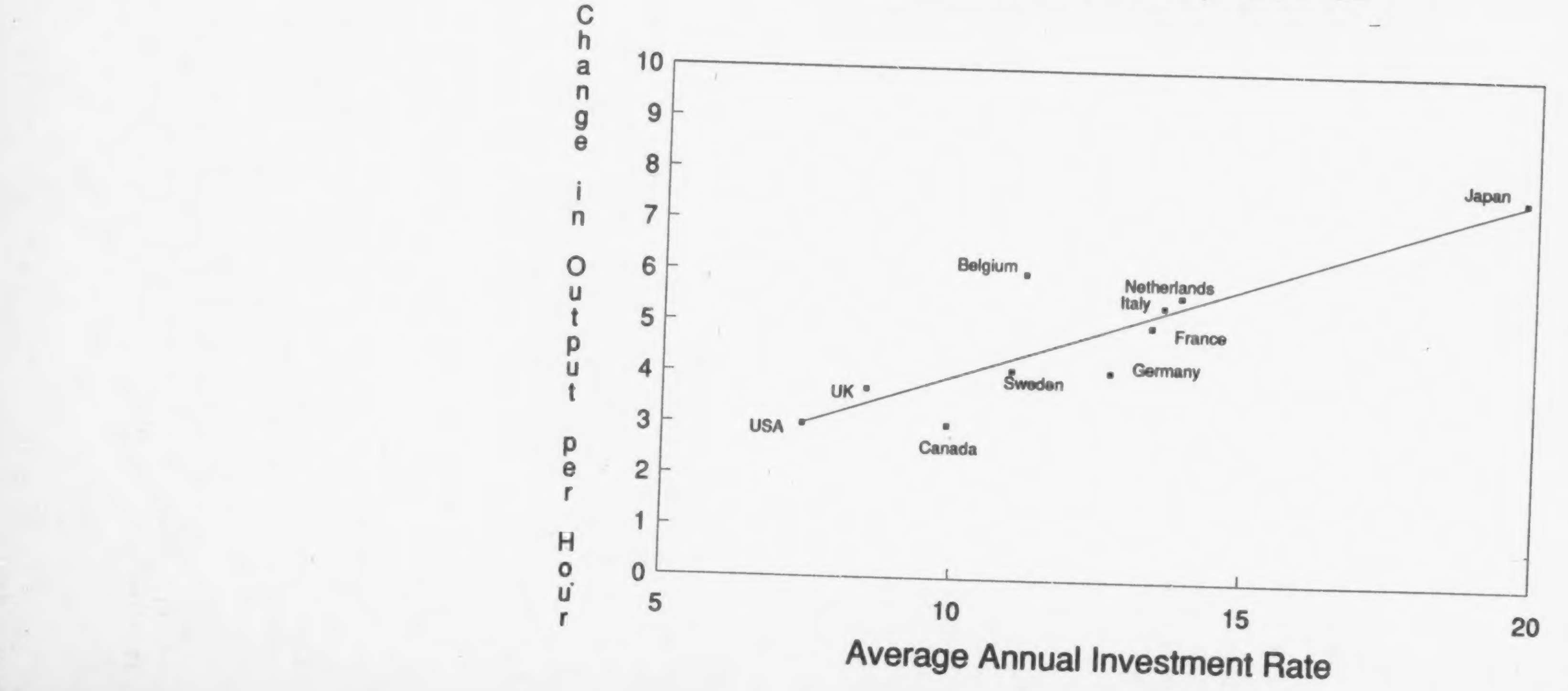
In the short run, increases in gross investment (investment in new capital as well as investment that is undertaken to replace depreciated or worn out capital) will increase the capital stock. As the capital stock increases, worker productivity increases and the economy will experience a higher rate of growth. Because a larger capital stock results in a larger amount of depreciation, in the long run any given rate of investment will just offset the depreciation of the steady state capital stock. Thus, in the long run an increase in the level of investment increases a nation's standard of living, but may not increase a country's long run rate of growth. To sustain a higher growth rate, investment must continue to increase as a percentage of GNP.

A qualification exists to the previous analysis. It is possible that a higher investment level can lead to a higher growth rate even in the long run. Even if there is no growth in the level of investment, the investment to replace depreciated capital may still enhance economic growth because the new capital is more productive than the capital it replaced. The higher the level of investment, the more new capital is purchased each year, and thus the higher the rate at which new technologies may get adopted.

Figure 3 illustrates the relationship between investment rates and productivity growth in manufacturing. Countries that had high net investment rates during the period from 1960 to 1989 also experienced large increases in productivity (output per hour worked).

Figure 3

Investment & Manufacturing Productivity
Selected Countries, 1960-89



B. Trends in National Investment

Investment in the United States

Table 6 reports gross and net private investment as a percentage of GNP for selected years. Table 6 indicates that as a percentage of GNP both the rate of gross and net investment were generally lower in the 1980s than in the 1970s.

Table 6.—Gross and Net Private Investment of the United States as a Percentage of GNP, Selected Years, 1929–1990

Year	Gross private domestic investment [2] as percent of GNP	Net private domestic investment [3] as percent of GNP
1929	16.1	6.5
1939	10.4	.5
1949	14.0	5.6
1954	14.5	5.8
1959	16.2	7.2
1964	15.3	7.0
1969	15.9	7.4
1970	14.6	5.9
1971	15.6	6.8
1972	16.7	7.8
1973	17.6	8.9
1974	16.3	7.0
1975	13.7	3.6
1976	15.6	5.5
1977	17.3	7.2
1978	18.5	8.3
1979	18.1	7.5
1980	16.0	4.9
1981	16.9	5.5
1982	14.1	2.0
1983	14.7	3.1
1984	17.6	6.6
1985	16.0	5.1
1986	15.6	4.7
1987	15.5	4.7
1988	15.3	4.8
1989	14.8	4.2
1990 [1]	13.6	3.1

[1] Estimate.

[2] Gross private domestic investment represents investment in the United States by the private sector in new capital as well as investment that is undertaken to replace depreciated or worn out capital.

[3] Net private domestic investment is gross private domestic investment less depreciation on the existing capital stock.

Source: Department of Commerce, Bureau of Economic Analysis.

Comparison to other countries

The U.S. investment rate has long been lower than that of other countries. For instance, over the past thirty years, the Japanese investment rate has averaged over two and one-half times that of the United States, while that of Germany has been more than two-thirds greater. While the gap has narrowed in the past decade, the rate of investment in the United States remains significantly below that of other countries. Other countries have also experienced declining net investment rates in the 1980s. Figure 4 indicates that net investment as a percentage of GDP has been lower in the 1980s than in the 1970s or late 1960s for each of the United States, Canada, Japan, and Germany. Table 7 also documents this trend for a larger group of countries.

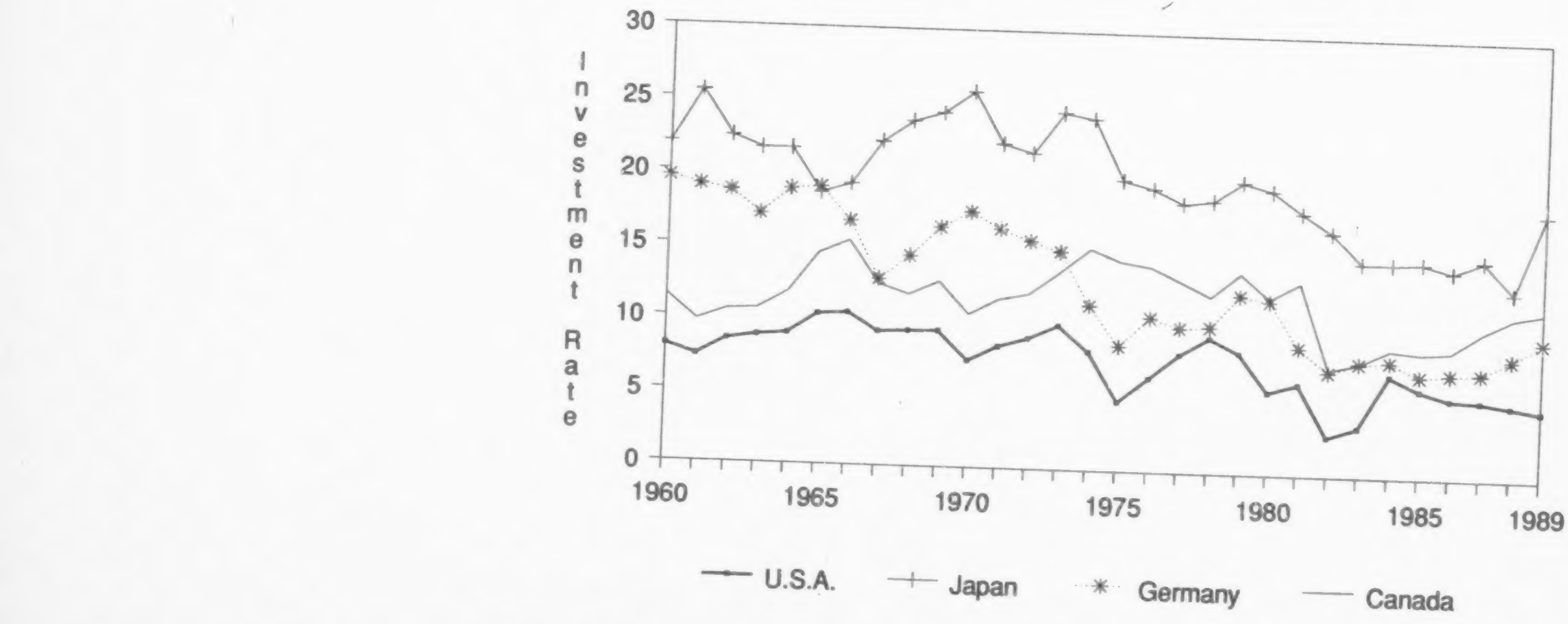
Table 7.—Investment as Percentage of GDP in Selected Countries, Decadal Averages, 1960s–1980s

Country	1960s	1970s	1980s	Average 1960–89
United States	9.0	7.9	5.2	7.4
Japan	22.1	21.5	15.8	19.8
West Germany	17.2	12.7	8.3	12.7
France	16.7	15.2	8.2	13.4
United Kingdom	10.5	9.4	5.6	8.5
Italy	16.0	14.2	10.5	13.6
Canada	12.1	13.0	11.7	11.7
Belgium	12.5	13.2	7.9	11.2
Greece	17.5	22.0	12.5	17.3
Netherlands	18.0	14.6	9.2	13.9
Sweden	14.5	11.4	7.0	11.0
Switzerland	19.5	15.6	15.7	16.9
Australia	14.2	11.2	9.4	11.6

Source: OECD, *National Accounts, 1960–1987,* 1991.

Figure 4

Net National Investment Rates
as a Percentage of GDP



Source: OECD

Components of investment in the United States

To understand the manner in which investment affects growth, it is useful to examine the components of aggregate investment. National investment is generally divided into two broad components: fixed investment and inventory investment. Fixed investment is comprised of investment in equipment and investment in structures. Investment in structures is further divided into investment in residential and nonresidential structures.

Table 8 reports total gross private domestic investment, total net private domestic investment, and the components of total net private domestic investment for selected years.[17] As Table 8 reports, the vast majority of gross investment in any one year is replacement investment, that is, investment that only maintains the value of the existing capital stock. The table also indicates that in any one year changes in the level of inventories may represent a sizable percentage of total net investment. For example, inventory investment exceeded ten percent of total net private investment in each of 1987, 1988, and 1989. Investment that reflects an increase in the level of inventories arguably does not lead to future productivity gains or continuing gains in the standard of living. Net fixed investment may represent a better measure of new additions to the productive capital stock.

The percentage of investment allocated to total net fixed investment was lower in the 1980s than in the 1970s. In the 1970s total net fixed investment averaged 36.8 percent of gross private investment whereas in the 1980s it averaged 26.8 percent of gross private investment. The decline in the relative share of total net fixed investment as a component of total gross private investment is paralleled by an increase in the share of replacement investment (depreciation). Some have attributed the increase in replacement investment to a general shortening of useful lifetimes of equipment. Total net nonresidential investment (equipment and structures) has been roughly constant in nominal terms since 1985, which implies a decline in real terms. Over the same period, net investment in nonresidential structures has declined in nominal and real terms.

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[17] Appendix Table 2 in this part presents data on gross investment by component.

Table 8.—U.S. Domestic Investment, Selected Years, 1929–1990

[In billions of dollars]

Year	Gross private domestic investment	Capital consumption allowance	Net private domestic investment	Net fixed investment					Change in inventories
				Total net fixed investment	Net structures	Net equipment	Total net nonresidential investment	Net residential investment	
1929	$16.7	$9.9	$6.8	$5.0	$1.8	$1.4	$3.3	$1.7	$1.7
1939	9.5	9.0	.5	.1	−1.1	.4	−.7	.8	.4
1949	36.5	22.0	14.5	17.6	2.2	6.5	8.7	8.9	−3.1
1954	54.1	32.5	21.6	23.2	5.0	5.2	10.2	13.0	−1.6
1959	80.2	44.6	35.6	29.8	6.4	5.7	12.1	17.7	5.8
1964	99.6	53.9	45.7	40.3	9.4	10.9	20.3	20.0	5.4
1969	153.2	81.4	71.8	62.0	17.4	22.4	39.8	22.2	9.8
1970	148.8	88.8	60.0	56.9	17.4	19.4	36.8	20.1	3.1
1971	172.5	97.5	75.0	67.2	16.8	17.7	34.5	32.7	7.8
1972	202.0	107.9	94.1	83.6	17.4	23.1	40.5	43.1	10.5
1973	238.8	118.1	120.7	101.2	21.7	34.4	56.2	45.0	19.6
1974	240.8	137.5	103.3	88.0	22.0	33.7	55.8	32.2	15.4
1975	219.6	161.8	57.8	63.4	15.6	21.9	37.5	25.9	−5.6
1976	277.7	179.2	98.5	82.5	16.0	24.8	40.9	41.6	16.0
1977	344.1	201.5	142.6	121.2	17.6	41.0	58.6	62.6	21.3
1978	416.8	229.9	186.9	158.3	25.0	57.2	82.2	76.1	28.6
1979	454.8	265.8	189.0	176.1	34.5	64.5	98.9	77.2	13.0
1980	437.0	303.8	133.2	141.5	39.4	49.5	88.9	52.6	−8.3
1981	515.5	347.8	167.7	143.6	51.7	46.9	98.6	45.0	24.0
1982	447.3	383.2	64.1	88.7	45.9	19.6	65.5	23.2	−24.5
1983	502.3	396.6	105.7	112.8	25.9	19.9	45.8	67.0	−7.1

Table 8.—U.S. Domestic Investment, Selected Years, 1929–1990—Continued

[In billions of dollars]

Year	Gross private domestic investment	Capital consumption allowance	Net private domestic investment	Net fixed investment					Change in inventories
				Total net fixed investment	Net structures	Net equipment	Total net nonresidential investment	Net residential investment	
1984	664.8	415.5	249.3	181.7	39.3	51.8	91.1	90.6	67.7
1985	643.1	437.2	205.9	194.5	45.8	56.3	102.1	92.4	11.3
1986	659.4	460.1	199.3	192.4	27.5	47.8	75.3	117.1	6.9
1987	699.5	487.0	212.5	184.2	16.8	49.0	65.8	118.4	28.3
1988	747.1	514.3	232.8	206.6	18.1	70.4	88.6	118.0	26.2
1989	771.2	554.4	216.8	188.5	16.8	67.2	84.0	104.5	28.3
1990 [1]	745.0	575.7	169.3	NA	NA	NA	NA	NA	−2.2

[1] NA = not available.

Source: Department of Commerce, Bureau of Economic Analysis.

While investment in structures increases society's well-being by increasing productivity in industrial and commercial uses and by providing shelter to households, a recent study has argued that investment in equipment is particularly important for future economic growth.[18] Table 9 reports the percentage composition of net private fixed investment for selected years. In many years residential structures account for more than half of net private fixed investment. For the last decade equipment has generally accounted for 35 percent or less of net private fixed investment.

Table 9.—Percentage Distribution of Net Private Fixed Investment of the United States, Selected Years, 1929–1989

Year	Total net fixed investment (billions)	Nonresidential investment			Residential as percent of net fixed investment
		Structures as percent of net fixed investment	Equipment as percent of net fixed investment	Total nonresidential as percent of net fixed investment	
1929	$4.9	36.7	28.6	67.3	34.7
1939	.1	−1,100.0	400.0	−700.0	800.0
1949	17.6	12.5	36.9	49.4	50.6
1954	23.2	21.6	22.4	44.0	56.0
1959	29.8	21.5	19.1	40.6	59.4
1964	40.3	23.3	27.0	50.4	49.6
1969	62.0	28.1	36.1	64.2	35.8
1970	56.9	30.6	34.1	64.7	35.3
1971	67.2	25.0	26.3	51.3	48.7
1972	83.6	20.8	27.6	48.4	51.6
1973	101.1	21.5	34.0	55.6	44.5
1974	87.9	25.0	38.3	63.5	36.6
1975	63.4	24.6	34.5	59.1	40.9
1976	82.4	19.4	30.1	49.6	50.5
1977	121.2	14.5	33.8	48.3	51.7
1978	158.3	15.8	36.1	51.9	48.1
1979	176.2	19.6	36.6	56.1	43.8
1980	141.5	27.8	35.0	62.8	37.2
1981	143.6	36.0	32.7	68.7	31.3
1982	88.7	51.7	22.1	73.8	26.2
1983	112.8	23.0	17.6	40.6	59.4
1984	181.7	21.6	28.5	50.1	49.9
1985	194.5	23.5	28.9	52.5	47.5
1986	192.4	14.3	24.8	39.1	60.9

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[18] J. Bradford Delong and Lawrence H. Summers, "Equipment Investment and Economic Growth," *Quarterly Journal of Economics*, vol. 106, May 1991.

Table 9.—Percentage Distribution of Net Private Fixed Investment of the United States, Selected Years, 1929–1989—Continued

Year	Total net fixed investment (billions)	Nonresidential investment			Residential as percent of net fixed investment
		Structures as percent of net fixed investment	Equipment as percent of net fixed investment	Total nonresidential as percent of net fixed investment	
1987	184.2	9.1	26.6	35.7	64.3
1988	206.5	8.8	34.1	42.9	57.1
1989	188.5	8.9	35.6	44.6	55.4

Source: Department of Commerce, Bureau of Economic Analysis.

Tax policy and the allocation of private investment

Tax policy can distort the allocation of private investment funds and thereby make less efficient the current level of private investment. For example, tax policy may lead to an inefficiently high level of investment in owner-occupied housing. Owner-occupied housing is tax advantaged because the implicit rental income (in the form of housing services) is untaxed to the owner while the owner may deduct the interest expenses incurred to purchase the home.[19] This creates incentives for taxpayers to overinvest in housing, purchasing more housing than they would in the absence of these tax benefits. The purchase of housing comes at the expense of other private fixed investment. Consequently, there will be more investment in housing and less in equipment, for example, than would be the case in the absence of these tax benefits. There may also be a bias against investment in nonresidential equipment and structures from another source. By permitting the expensing of advertising expenditures, research and development expenditures, legal fees, and other expenditures that create intangible capital, tax policy may create incentives for such expenditures as opposed to private fixed investment.[20] Tax policy may also inefficiently distort the mix of different equipment and structures if the depreciation deductions available for tax purposes are not equal to actual economic depreciation.

Public investment

Public investment and private productivity growth

The above discussion examined the trends in private investment and the importance of private investment to productivity and income growth. Some analysts believe it is equally important to include public investment in an analysis of productivity and income growth. Public investment is often referred to as investment in infrastructure. More generally, public investment encompasses any governmental expenditure to purchase or create publicly owned capital. None of this sort of investment is measured as investment in the data presented above.[21]

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[19] In addition, capital gains on owner-occupied housing receive more favorable tax treatment than capital gains on other assets.

[20] Don Fullerton and Andrew B. Lyon, "Tax Neutrality and Intangible Capital," in Lawrence H. Summers, ed. *Tax Policy and the Economy*, vol. 2 (Cambridge: National Bureau of Economic Research), 1988.

Some public investment, for example, the purchase of computers to assist in the enforcement of the nation's tax laws, would only be expected to increase the productivity of the public sector work force, the Internal Revenue Service in this example. Other public investment, for example, the construction of highways, would be expected to increase the productivity of the private sector work force, in this example, private freight delivery. While highway construction might have an immediate effect on private productivity, other public investment, such as the construction of new laboratories at a public university, might not have an effect on private productivity until some time in the future. Still other public investment, such as the purchase of wetlands for preservation, arguably increases society's well-being, but contributes neither to the measured productivity of the public or private work force.[22]

The rate of public investment in the United States has declined. The growth rate of the net stock of the nonmilitary[23] public capital in the United States averaged 4.1 percent per year from 1950 to 1970, but averaged only 1.6 percent per year from 1970 to 1985.[24] At least one empirical study has attempted to quantify the effect of public investment on the growth of private output in the United States. The results of that study suggest that the private return to public investment in terms of productivity gains is great.[25] However, that study has been criticized for estimated effects that are implausibly large, suggesting paybacks in present value terms ten times the size of the investment.[26]

The rate of public investment in the United States is lower than that of other countries. From 1973 to 1985, the rate of net public investment relative to GDP in the United States averaged 0.3 percent per year, while the same figure for the other G-7 countries (Canada, France, Germany, Italy, Japan, and the United Kingdom) exceeded 1.5 percent per year in each country, with that of Japan averaging 5.1 percent.[27] Some researchers have suggested this slowdown in public investment may help explain the low productivity gains in the United States over the past two decades in comparison to other countries. Others have suggested that such a correlation is coincidental, not causal, and only shows that the time pattern of productivity growth and public investment are similar. For example, in the United States both public investment and productivity rose in the 1950s and 1960s and fell in the 1970s.[28] One empirical study using a cross section of 98 countries over the period 1960 to 1985 concludes "there is little relation of growth to the quantity of public investment." [29]

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[21] Investments in research and development or in developing the skills of workers, called human capital by economists, also are not included in the data presented above. A discussion of the role of research and development and human capital in growth and international competitiveness is in sections IV and V of this part.

[22] See section V.C., below, for further discussion of investments and other policies designed to improve or protect the environment.

[23] Military capital is excluded by analysts as a proxy for public investment that would not be expected to affect private output. The examples in the text above suggest this would be an underestimate of public investment that would not be expected to affect private output.

[24] David Alan Aschauer, "Is Public Expenditure Productive?" *Journal of Monetary Economics*, vol. 23, March 1989.

[25] *Ibid.*

[26] Clifford Winston, "Efficient Transportation Infrastructure Policy," *Journal of Economic Perspectives*, vol. 5, Winter 1991.

[27] Aschauer, "Is Public Expenditure Productive?", *supra.*

Tax policy and public investment

Public investment typically is the direct outcome of Federal, State, and local expenditure programs. Generally, one would not expect that tax policy would directly affect the rate of such investments. Recently, some researchers have suggested that Federal tax policy has contributed to the decline in the rate of infrastructure investment. In particular, they argue that the restrictions on the issuance of tax-exempt bonds enacted in the Tax Reform Act of 1986 have increased the cost of capital for State and local governments. With a higher cost of capital, State and local governments would be expected to undertake fewer capital projects. However, restrictions imposed by the Tax Reform Act of 1986 could hardly explain the documented decline in public investment since 1970. On the other hand, to the extent that tax policy contributes to raising or lowering the cost of capital (see discussion below), tax policy may affect the rate of public investment as well as the rate of private investment.

C. Saving and Foreign Investment

Sources of investment funds

Investment involves a tradeoff between consumption today and consumption tomorrow. Investment can either be financed by national saving or by foreign borrowing (saving by foreigners). A basic accounting identity of the national income and product accounts states that national investment must equal the sum of private saving, government saving, and net foreign borrowing.

The experience of the 1980s, when investment in the United States greatly exceeded national saving, demonstrates how important net foreign borrowing has become (see Figure 5). When demand for investment funds in the United States outstrips the supply of national savings, interest rates rise in response. Increases in interest rates attract foreign capital to the United States, and the excess of domestic investment over national saving is financed by foreigners' saving.

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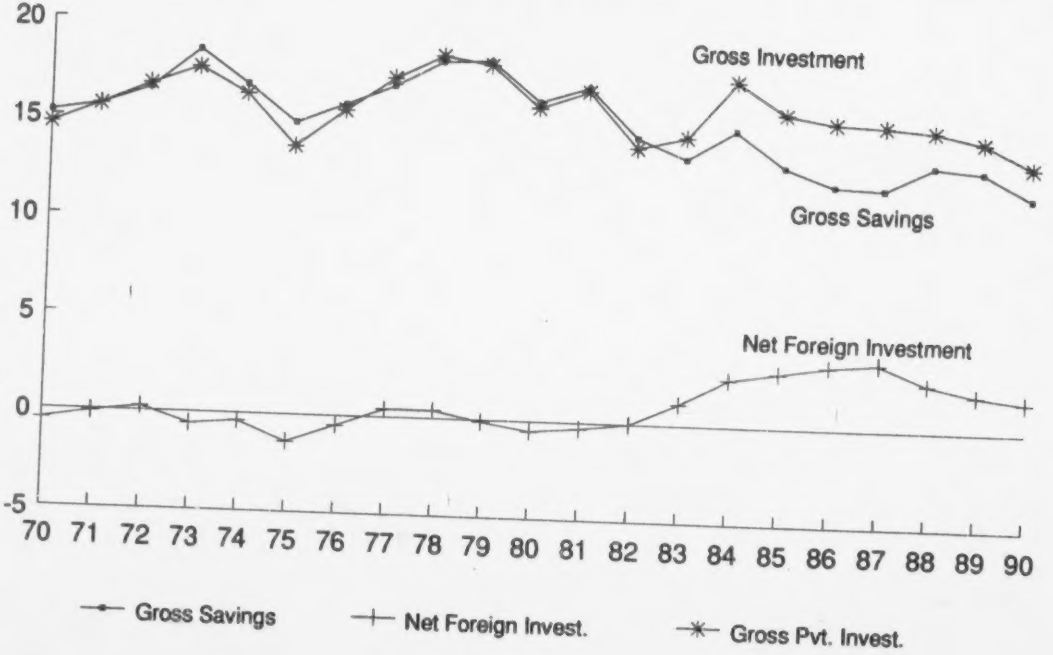
[28] Charles L. Schultze, "The Federal Budget and the Nation's Economic Health," in Henry Aaron, (ed.) *Setting National Priorities: Policy for the Nineties*, (Washington: The Brookings Institution, 1990).

[29] Robert J. Barro, "Economic Growth in a Cross Section of Countries," *Quarterly Journal of Economics*, vol. 106, May 1991.

Figure 5

Saving and Investment as a % of GNP
1970-1990



If capital is not perfectly mobile between nations then the level of national saving can affect the level of investment. When the domestic saving rate is low, so is the domestic investment rate. Historically, there has been a strong positive correlation between a country's rate of investment and its rate of saving.[30] This relationship is illustrated for a number of countries in Figure 6. Although this relationship has become weaker over time,[31] it is still true that countries with high saving rates also generally have high investment rates.

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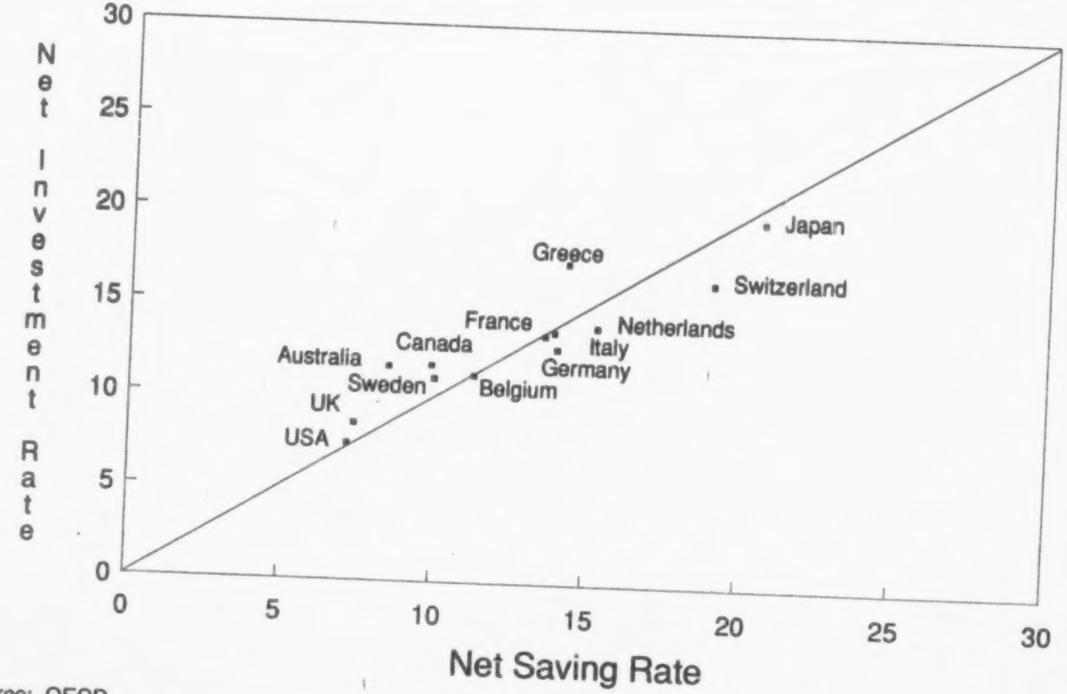
[30] See, for instance, Martin Feldstein and Charles Horioka, "Domestic Saving and International Capital Flows," *Economic Journal*, vol. 90 (June 1980) pp. 314-29.

[31] See Phillippe Bacchetta and Martin Feldstein, "National Saving and International Investment," National Bureau of Economic Research Working Paper #3164, November 1989.

Figure 6

Net Saving and Net Investment Rates
Selected Countries, Averages 1960-89



Source: OECD

If capital is mobile (that is, if foreigners can invest in the United States and U.S. persons can invest abroad at low cost and without much added risk), then investment in a given country will not decline as much when that country's saving rate falls. Instead, investment will be financed by foreigners, either by direct foreign investment in the United States or by foreign lending to U.S. investors. When domestic saving rates are low, foreign financing of domestic investment results in a higher rate of investment than would be possible if investment were financed by domestic saving alone.

Trends in national saving

National saving is generally divided into private saving and public saving. Private saving is comprised of household or personal saving and business saving. Households save by not spending all of their disposable (i.e., after-tax) income. Businesses save by retaining some of their earnings. Public saving reflects the extent to which the Federal, State, and local governments run budget surpluses. Table 10 presents data on the components of net national saving in the United States.

Table 10.—Components of U.S. Net National Saving, Selected Years, 1929–1990

[In billions of dollars]

Year	Private saving			Public saving			Total net national saving
	Net personal saving	Net business saving	Total net private saving	Federal surplus or deficit (−)	State and local surplus or deficit (−)	Total public saving	
1929	$2.6	$2.4	$5.0	$1.2	$−0.2	$1.0	$6.0
1939	1.8	.3	2.1	−2.2	.0	−2.2	−.1
1949	7.4	10.5	17.9	−2.6	−.7	−3.4	14.5
1954	16.4	9.8	26.2	−6.0	−1.1	−7.1	19.1
1959	21.8	15.7	37.5	−1.1	−.4	−1.6	35.9
1964	31.5	25.4	56.9	−3.3	1.0	−2.3	54.6
1969	42.2	25.3	67.5	8.4	1.5	9.9	77.4
1974	96.7	20.1	116.8	−11.6	7.2	−4.3	112.5
1975	104.6	37.1	141.7	−69.4	4.5	−64.9	76.8
1976	95.8	46.4	142.2	−53.5	15.2	−38.4	103.8
1977	90.7	62.3	153.0	−46.0	26.9	−19.1	133.9
1978	110.2	69.0	179.2	−29.3	28.9	−.4	178.8
1979	118.1	61.9	180.0	−16.1	27.6	11.5	191.5
1980	136.9	37.7	174.6	−61.3	26.8	−34.5	140.1
1981	159.4	43.3	202.7	−63.8	34.1	−29.7	173.0
1982	153.9	20.0	173.9	−145.9	35.1	−110.8	63.1
1983	130.6	65.0	195.6	−176.0	47.5	−128.6	67.0
1984	164.1	94.0	258.1	−169.6	64.6	−105.0	153.1
1985	125.4	102.7	228.1	−196.9	65.1	−131.8	96.3
1986	124.9	84.5	209.4	−206.9	62.8	−144.1	65.3
1987	92.5	83.2	175.7	−158.2	51.0	−107.1	68.6
1988	145.6	91.4	237.0	−141.7	46.5	−95.3	141.7

Table 10.—Components of U.S. Net National Saving, Selected Years, 1929–1990—Continued

[In billions of dollars]

Year	Private saving			Public saving			Total net national saving
	Net personal saving	Net business saving	Total net private saving	Federal surplus or deficit (−)	State and local surplus or deficit (−)	Total public saving	
1989	171.8	53.1	224.9	−134.3	46.4	−87.8	137.1
1990	179.1	29.1	208.2	−161.3	35.4	−126.0	82.2

Source: Department of Commerce, Bureau of Economic Analysis.

Table 11 presents U.S. net saving by component as a percentage of gross national product (GNP). As the table demonstrates, net business saving,[32] personal saving, and public saving were all lower during the 1980s than in any of the three previous decades. While private saving remained positive, public saving was consistently negative during the 1980s as the result of Federal deficits. The magnitude of public dissaving generally was larger relative to GNP than in earlier years. As the table indicates, net national saving declined steadily through most of the 1980s.

Table 11.—Components of Net U.S. National Savings as a Percentage of GNP, Selected Years, 1929–1990

Year	Net personal saving	Net business saving	Total net private saving	Public saving	Total net national saving
1929	2.5	2.3	4.8	1.0	5.8
1939	2.0	.3	2.3	−2.4	−.1
1949	2.8	4.0	6.9	−1.3	5.6
1954	4.4	2.6	7.0	−1.9	5.1
1959	4.4	3.2	7.6	−.3	7.2
1964	4.8	3.9	8.8	−.4	8.4
1969	4.4	2.6	7.0	1.0	8.0
1974	6.6	1.4	7.9	−.3	7.6
1975	6.5	2.3	8.9	−4.1	4.8
1976	5.4	2.6	8.0	−2.2	5.8
1977	4.6	3.1	7.7	−1.0	6.7
1978	4.9	3.1	8.0	.0	7.9
1979	4.7	2.5	7.2	.5	7.6
1980	5.0	1.4	6.4	−1.3	5.1
1981	5.2	1.4	6.6	−1.0	5.7
1982	4.9	.6	5.5	−3.5	2.0
1983	3.8	1.9	5.7	−3.8	2.0
1984	4.4	2.5	6.8	−2.8	4.1
1985	3.1	2.6	5.7	−3.3	2.4
1986	3.0	2.0	4.9	−3.4	1.5
1987	2.0	1.8	3.9	−2.4	1.5
1988	3.0	1.9	4.9	−2.0	2.9
1989	3.3	1.0	4.3	−1.7	2.6
1990	3.3	.5	3.8	−2.3	1.5
Average 1950–59	4.7	2.8	7.5	−.1	7.4
Average 1960–69	4.6	3.5	8.1	−.3	7.9
Average 1970–79	5.6	2.4	8.0	−1.0	7.1
Average 1980–89	3.8	1.7	5.5	−2.5	3.0

Source: Department of Commerce, Bureau of Economic Analysis.

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[32] Tables 10 and 11 present net saving, which equals gross saving less capital consumption (depreciation). Trends in gross saving are presented in the Appendix to Part One.

Comparison between the saving rates of the United States and other countries

The United States' national saving rate is low when compared to that of other nations. This comparison is shown in Table 12 for total national saving. Figure 7 also highlights the saving rate of the United States, Canada, Germany, and Japan from 1960–1989. As the table indicates, the net saving rate of the United States during the 1980s was below the saving rates of most countries in the OECD.[33]

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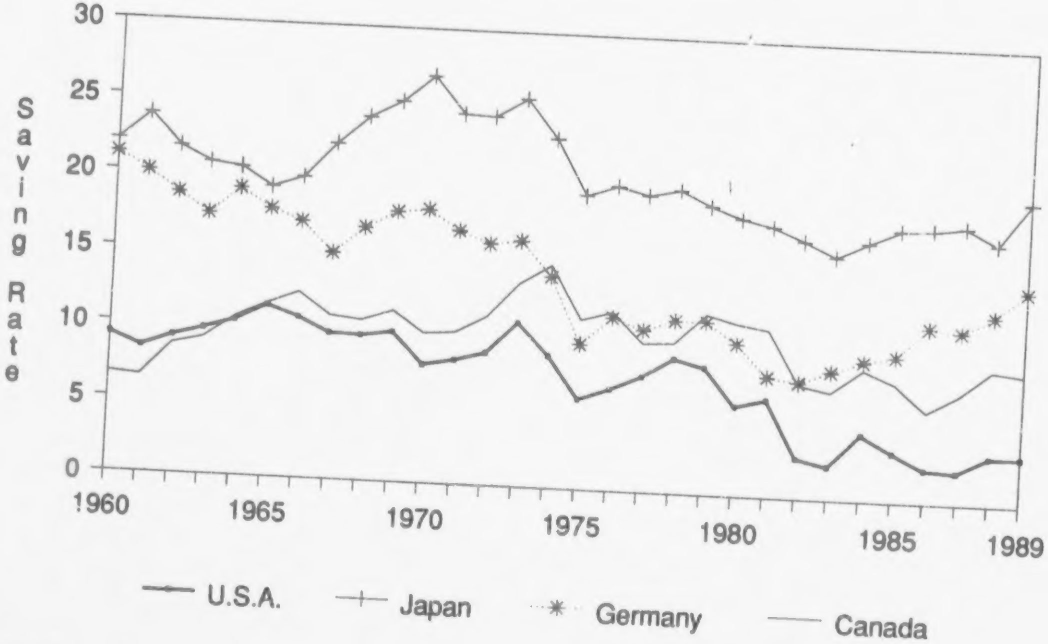
[33] The data on international saving rates in Table 12 are not directly comparable to the data in Table 11 because such data are not always compiled consistently across nations. While the source of the international comparisons draws on data from the OECD, which attempts to provide data on an internationally comparable basis, the data are not fully comparable. For example, in computing household saving rates, the definition of the household sector is not identical across all countries. In particular, except in Japan, France, and Italy, private nonprofit institutions are included in the household sector. See, Andrew Dean, Martine Durand, John Fallon, and Peter Hoeller, "Saving Trends and Behavior in OECD Countries," OECD, Economics and Statistics Department Working Paper, No. 67, June 1989.

Figure 7

Net National Saving Rates
as a Percentage of GDP



Source: OECD

Table 12.—Savings as a Percentage of GDP in Selected Countries, Decadal Averages, 1960s–1980s

Country	1960s	1970s	1980s	Average 1960–89
United States	9.8	8.2	3.6	7.2
Japan	21.9	22.3	17.8	20.7
West Germany	18.0	13.6	10.2	14.0
France	17.7	15.4	7.8	13.6
United Kingdom	10.0	7.5	4.8	7.4
Italy	17.8	14.4	9.6	13.9
Canada	9.8	11.4	8.4	9.9
Belgium	12.8	13.8	7.2	11.3
Greece	14.4	19.7	8.8	14.3
Netherlands	18.3	15.8	11.8	15.3
Sweden	13.8	10.7	5.4	10.0
Switzerland	19.3	18.4	19.6	19.1
Australia	11.7	9.8	4.1	8.5

Source: OECD, *National Accounts, 1960–1987,* 1991.

Generally, saving rates of all nations have declined from the rates of the late 1960s. In percentage terms, the decline in the national saving rate of the United States between 1967 and 1989 is greater than the decline of the saving rates of Japan and Germany, but comparable to the decline of the saving rates of France and Italy.

Although many people have pointed to the low saving rate in the United States as a cause of declining productivity, others note that the United States has long been a relatively low-saving nation, and yet has enjoyed substantial economic growth. They argue that many of the nations with higher saving rates were nations that needed to rebuild after the destruction of war on their own territory. However, this explanation does not appear to explain the results for the most recent decade.

Furthermore, some argue that the low saving rate in the United States may be a product of demographics, and that the saving rate will increase as the "baby boomers" enter their forties and fifties, the years during which people do much of their retirement saving. However, others note that, in the past, demographic changes have not been very successful at predicting saving rates. Still others attribute at least a portion of the decline in the national saving rate in the 1980s to large public dissaving.

In short, the decline in private saving rates is not well understood. It is likely that demographic changes, capital market liberalization, increased insurance availability, and increased social security benefits have all contributed to the decline. However, these factors have not been shown to have been significant enough to account for the total decline in the saving rate. Similarly, there is no convincing explanation for why saving rates have declined in other nations as well.[34]

Tax policy and private saving

Tax policy would be expected to affect private saving by affecting the after-tax return to saving. Taxing the return to saving reduces the after-tax return. By reducing taxes on the returns to saving, the after-tax return is increased. When the return on saving increases, the price of future consumption decreases in terms of present consumption, because the taxpayer has to forego fewer dollars today to consume a dollar's worth of consumption in the future.

This price decrease can affect saving in two ways. If future consumption is cheaper compared to current consumption, taxpayers may choose to substitute future consumption for current consumption. This effect increases saving. When the price of future consumption falls, though, the amount of investment necessary to achieve any particular level of income in the future decreases. For example, a taxpayer in the 28-percent marginal tax bracket may set aside $1,300 today to help defray tuition expenses of a child 15 years from now. If the taxpayer's investment earns 8 percent annually and those earnings are taxed annually at a 28-percent tax rate, in 15 years the investment will be worth $3,000. If the taxpayer could invest tax-free, an investment of only $946 today would be worth $3,000 in 15 years (assuming the same 8-percent return). The tax benefit may decrease saving because it permits the taxpayer to save less in order to accumulate the same amount of money in the future.

Substantial disagreement exists among economists as to the effect on saving of increases in the net return to saving. Some theoretical studies have argued that one should expect substantial increases in saving from increases in the net return.[35] Other studies have argued that large behavioral responses to changes in the after-tax return need not occur.[36] Empirical investigation of the responsiveness of personal saving to after-tax returns provides no conclusive evidence. Some find personal saving responds strongly to increases in the net return,[37] while others find little or a negative response.[38]

It is important to observe that even if tax policy has a strong effect on private saving, national saving is comprised of private and public saving. To the extent that policies intended to increase private saving increase the size of the Federal budget deficit, at least some of the positive effect on national saving is lost. The more efficient the saving incentive is at generating new saving without subsidizing existing or previously planned saving, the smaller is the effect on the deficit.

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[34] *See*, Lawrence Summers and Chris Carroll, "Why Is U.S. National Saving So Low?" *Brookings Papers on Economic Activity 2*, The Brookings Institution, 1987, pp. 607-635.

[35] *See*, Lawrence H. Summers, "Capital Taxation and Accumulation in a Life Cycle Growth Model," *American Economic Review*, 71, (September 1981).

[36] *See*, David A. Starrett, "Effects of Taxes on Saving," in Henry J. Aaron, Harvey Galper, and Joseph A. Pechman (eds.), *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax* (Washington: Brookings Institution), 1988.

[37] *See*, M. Boskin, "Taxation, Saving, and the Rate of Interest," *Journal of Political Economy*, April 1978, 86.

[38] *See*, G. von Furstenberg, "Saving," in H. Aaron and J. Pechman (eds.), *How Taxes Affect Economic Behavior*, (Washington Brookings Institution), 1981.

Tax policy may also affect the efficiency of the allocation of any given level of saving. For example, if the assets of one sector are tax-favored, taxpayers may commit more funds to that sector than is efficient, to the detriment of other sectors.

D. Investment and the Cost of Capital

The cost of capital measures the opportunity cost of funds, and therefore it is the rate at which firms discount the future returns of an investment in order to determine whether the investment is worthwhile. When the cost of capital is low, more investments will be determined to be profitable. Thus, the lower the cost of capital, the higher the level of investment. Since in theory firms invest in all projects that yield a rate of return equal to or greater than the cost of capital, the cost of capital also measures the return on the marginal investment.

One common explanation for the higher levels of investment in other countries relative to that in the United States is that the United States has a higher cost of capital. Because firms finance investments with both equity and debt, the cost of capital cannot be measured simply by the interest rate, and can be quite difficult to measure. Furthermore, because countries differ in their accounting practices, calculating comparable costs of capital across countries is also difficult. However, a number of attempts to calculate comparable cross-country costs of capital have found that the cost of capital in the United States is generally higher than the costs of capital in other countries. One study found that the cost of capital in the United States and the United Kingdom is substantially higher than the costs of capital in Japan and Germany.[39]

Several explanations for the difference between the cost of capital in the United States and that in other countries have been explored. In particular, analysts have focused on the reasons for the differences between measurements of Japanese and U.S. capital costs. As discussed below, there are a variety of nontax and tax reasons to explain the differences between costs of capital. Furthermore, it is possible that the observed differences in the costs of capital are due to errors in measurement and to differences in the riskiness of investments across countries, and that once these are taken into account, costs of capital are actually quite similar.

Nontax reasons for differences in international costs of capital

One nontax explanation for the relatively high cost of capital in the United States is that the U.S. saving rate has been below that of other countries. This explanation requires the existence of barriers to international capital mobility (for example, if foreigners investing in the United States incur more risk or costs than they would investing in their own country). If instead capital were perfectly mobile internationally, then differences in saving rates could not explain differences in capital costs. Because the cost of capital measures the rate of return on the marginal investment, a higher cost of capital in the United States than elsewhere would indicate that the marginal investment in the United States yields a higher return than investments elsewhere. If capital were perfectly mobile, then foreign savings would flow into the U.S. to take advantage of the relatively high-yielding investments, and international costs of capital would be equalized.

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[39] See Robert McCauley and Steven Zimmer, "Explanations for International Differences in the Cost of Capital," *Federal Reserve Bank of New York Quarterly Review*, Summer 1989.

However, capital may not be perfectly mobile. As was discussed above, empirically there is a strong positive relationship between countries' investment and saving rates. This has been interpreted by some as evidence of imperfect capital mobility, although other explanations are also possible.[40] If capital is not perfectly mobile, then countries with higher saving rates will have lower capital costs, and countries with lower saving rates will have higher capital costs.

It is widely believed that international capital mobility increased substantially in the 1980s, and there is evidence that the relationship between domestic saving and investment rates has become less strong. If the differences in the cost of capital between the United States and other countries are indeed due to differences in saving rates, then the increased capital mobility of the 1980s should have resulted in a convergence of international costs of capital.

Standard accounting rates of return do not show this convergence, at least between the United States and Japan. However, it is possible that accounting rates of return in Japan have been understated in the 1980s. Japanese land values increased rapidly over much of the past decade. Because accounting rates of return do not take into account capital gains on the land unless the land is sold, accounting rates of return may have substantially understated the cost of capital in Japan during the 1980s. One study[41] suggested that after adjusting for the increase in land values, the cost of capital in Japan in the 1980s may have indeed been similar to that in the United States.

Other nontax reasons for international differences in the costs of capital include the possibility that Japanese investments are less risky than investments in the United States, and thus command lower risk premiums. If this is the case, then the correct risk-adjusted costs of capital would not differ.

Tax-related reasons for differences in international costs of capital

Taxation affects the cost of capital because it creates a wedge between the returns investors receive and the actual returns on investments. The larger is the tax wedge, the higher is the required return on investments. Taxation of capital in the United States and abroad could differ because of differences in debt-equity ratios, depreciation allowances, corporate tax rates, or personal tax rates.

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[40] For instance, Lawrence Summers (1988) argues that government policies are often aimed at minimizing current account deficits. This has the effect of minimizing international capital flows, thereby creating a correlation between national saving and investment. Other possible explanations for this correlation focus on underlying factors, such as population growth or changes in wealth, which may affect both saving and investment. See Lawrence Summers, "Tax Policy and International Competitiveness," in *International Aspects of Fiscal Policies*, University of Chicago Press, 1988.

[41] See Albert Ando and Alan J. Auerbach, "The Cost of Capital in Japan: Recent Evidence and Further Results," *Journal of the Japanese and International Economies*, Volume 3, Number 4, December 1990.

Because corporations can deduct their interest payments, both the Japanese and the U.S. tax systems provide a corporate tax advantage to debt financing over equity financing. Since Japanese investments generally have a higher share of debt financing than US. investments, it is possible that this difference in financing could explain the difference between the costs of capital in the two countries. However, empirically, the value of the interest deduction can explain at most a small fraction of the differences in the costs of capital.

Depreciation allowances cannot explain why the United States has a higher cost of capital than Japan, because depreciation allowances are generally believed to be more generous in the United States than in Japan. The combination of differences in corporate tax rates and depreciation allowances cannot explain the differences in the costs of capital. The effective corporate tax rate on equity-financed investment has been lower on average in the United States than in Japan.

Finally, the United States and Japanese tax systems differ in the personal taxes on investment income. Personal taxes on investment income are lower in Japan than in the United States. This difference in the personal taxation of investment income may help explain why the Japanese saving rate is higher than the U.S. saving rate. However, some studies have found that the tax wedges created by both corporate and personal taxation do not differ substantially between the United States, the United Kingdom, Germany, or Japan, and hence do not offer good explanations for the differences in the cost of capital.[42] Furthermore, because the personal taxation of investment income does not generally depend on where the investment is located, differences in personal taxation alone cannot explain differences in costs of capital unless capital is not perfectly mobile.

Thus, tax explanations cannot account for much of the difference in international capital costs (though this does not imply that changes in the U.S. tax system cannot affect the cost of capital). The cost of capital may be higher in the United States than elsewhere because the U.S. saving rate has been lower than elsewhere; to the extent that capital has become more internationally mobile, these differences may disappear over time. However, it is important to remember that costs of capital are very difficult to measure. Although it is unlikely that the cost of capital in the United States is lower than in other countries, the exact magnitude of the differences and the changes in the costs of capital over time are difficult to assess.

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[42] See Robert McCauley and Steven Zimmer, "Explanations for International Differences in the Cost of Capital," *Federal Reserve Bank of New York Quarterly Review*, Summer 1989.

IV. EDUCATION AND HUMAN CAPITAL FORMATION

While extra physical capital can make labor more productive, so too can extra human capital. For example, the addition of a computer to an office enables an office worker to accomplish more tasks in a day. Better education or training for the office worker also allows him or her to accomplish more tasks. Unlike investments in physical capital, investments in human capital will not appear directly in the national income and product accounts. The fruits of the human capital investments should appear later in terms of increased labor productivity.

Many people are concerned about whether the quality of the U.S. workforce is high enough to compete internationally. As industries become increasingly "high-tech," workers will need skills commensurate with the positions. Jobs created in the so-called "information age" may require more human capital than those created in past manufacturing booms. And as the proportion of lower-skilled jobs in the economy declines, workers will have to be better educated and better trained to compete in the labor market.

On-the-job training

Training may take place through a number of avenues, including on-the-job training, either informally ("learning by doing") or through organized programs. The decision whether to train people on the job or through formal education may depend on the type of skills acquired through the training and on who is financing the training. An employer will be loathe to pay for training in general skills that are applicable to a wide range of jobs and employers because the trainees could change employers once the training is completed. The employer who provided the training would not be able to reap the benefits of his or her investment. Such general skills would likely be provided through formal schooling or at the expense of the employee. To the extent that on-the-job training is not entirely specific to the current employer, employers may not be willing to invest in the socially optimal amount of training. If workers face mobility costs to switching employers, firms will have more incentive to finance the costs of training because they will be able to reap more of the benefits of increased productivity. Some researchers have suggested that Japanese employers may have an advantage in the provision of training opportunities because of cultural biases against job mobility.[43]

Evidence on the amount of on-the-job training provided in the United States is inconclusive in part because of the difficulties in measurement. Informal training in particular is hard to quantify. Estimates of the proportion of workers receiving on-the-job training range from one-twentieth to one-fifth. Large employers and the very smallest employers appear to provide more training.[44] Workers with more education appear more likely to receive on-the-job training. Some research has found that college graduates are 50 percent more likely to receive on-the-job training than are high school graduates.[45]

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[43] *See* references cited in Donald O. Parsons, "The Firm's Decision to Train," *Investing in People: A Strategy to Address America's Workforce Crisis*, Background Papers vol. I, U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, September 1989, p. 297.

Postsecondary education

Formal education not only provides a foundation for other training, but can increase human capital directly. One way in which the U.S. educational system stands apart from those of its industrial competitors is in its provision of wide access to postsecondary education. In 1987, over five percent of the U.S. population was enrolled in postsecondary education, a gross enrollment rate equal to 57 percent of the college-age population.[46] Table 13 shows that among competing industrial countries, only Canada offers such wide access. By comparison, Japan and West Germany had gross enrollment rates of only 30 percent.

Table 13.—Enrollment Rates for Postsecondary Education in Selected Countries, 1985

Country	Postsecondary enrollment rates (percent)	Postsecondary students per 100,000 inhabitants
Australia	29	2,464
Canada	55	5,090
China	2	168
West Germany	30	2,546
France	30	2,362
Italy	26	2,065
Japan	30	2,006
Mexico	16	1,529
Soviet Union	21	1,847
Sweden	37	2,650
United Kingdom	21	1,795
United States	57	5,145

Source: UNESCO 1987 Statistical Yearbook, chapter 3, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

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[44] Charles Brown, "Empirical Evidence on Private Training," *Investing in People: A Strategy to Address America's Workforce Crisis*, Background Papers vol. I, U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, September 1989.

[45] Stephen L. Mangum, "Evidence on Private Sector Training," *Investing in People: A Strategy to Address America's Workforce Crisis*, Background Papers vol. I, U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, September 1989.

[46] The gross enrollment rate is the number of students enrolled in postsecondary schools divided by the total number of people in the standard age range for postsecondary education (the "college-age population"). If significant numbers of the students are of ages outside the college-age range, the gross enrollment rate will be inflated. Table 13 shows the number of postsecondary students as a fraction of the population as well. The pattern in both sets of data are similar.

Broad access to postsecondary education has been a notable success of the U.S. educational system, but the growth of access has slowed over the past decade.[47] The median years of school completed by persons 25-29 years old reached a peak of 12.9 in 1976.[48] After staying at that level for a decade, it declined slightly to 12.8 in 1987. High school graduation rates for persons 20-24 years old have remained at about 85 percent since the mid-1970s.[49] The proportion of persons 25-29 years old who completed four or more years of college increased from 11.1 percent in 1960 to 16.3 percent in 1970. Over the 1980s, this proportion was virtually unchanged at about 22 percent.

The higher postsecondary enrollment rates in the United States than in most other countries do not necessarily imply that the U.S. workforce is more skilled. These higher enrollment rates in the United States and Canada occur in part because those postsecondary students are more likely than their foreign counterparts to attend schools that do not offer bachelor's or advanced degrees, such as community colleges and proprietary vocational schools.[50] For those students who do attend schools with bachelor's degree-granting programs, the United States offers schools with a wider range of quality than those of other countries, so that the skill levels of graduates may not be comparable to those of other countries.

A further reason that the high enrollments in the United States may oversate the skill of the workforce is that the students may not be acquiring the right skills. A relatively low proportion of the U.S. postsecondary graduates majored in fields that help add to technical and manufacturing know-how in the future. As shown in Table 14, less than one-tenth of U.S. postsecondary graduates in 1985 were in the fields of natural sciences, mathematics, or engineering, the lowest proportion among the 10 countries shown.[51] By contrast, the proportion of Japanese graduates in those fields was twice that of the United States; that of West Germany was more than 50 percent higher.

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[47] Unless otherwise noted, data in this paragraph are taken from the *Statistical Abstract of the United States*, 1990. Table No. 215: "Years of School Completed, by Age and Race: 1940 to 1988."

[48] *Economic Report of the President*, February 1990, p. 148.

[49] *Economic Report of the President*, February 1990, p. 150.

[50] UNESCO 1987 Statistical Yearbook, chapter 3, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

[51] Some recent research has suggested that grade inflation in college courses outside the natural sciences and engineering may contribute to the decision of U.S. students to choose majors outside the natural sciences and engineering. *See*, Richard Sabot and John Wakeman-Linn, "Grade Inflation and Course Choice," *Journal of Economic Perspectives*, volume 5, Winter 1991.

Table 14.—Graduates of Postsecondary Educational Institutions, by Field of Study in Selected Countries, 1985

Country	Percentage in engineering, natural science and mathematics
Australia	18
Canada	16
China	32
West Germany	14
France	20
Italy	10
Japan	19
Mexico	18
Soviet Union	NA
Sweden	NA
United Kingdom	22
United States	9

NA=Not Available.

Source: UNESCO 1987 Statistical Yearbook, chapter 3, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

The selection of fields of study may have long-term effects on rates of growth. To the extent that people engage in activities that create wealth rather than redistribute existing wealth, measured productivity and GDP would be higher. A recent study suggests that countries with a higher proportion of engineering students experienced more economic growth and those with a higher proportion of law students experienced less. The researchers selected the proportion of law students as a proxy for resources going into "rent-seeking activity," that is, activity that redistributes existing wealth. In different societies, rent-seeking activities could include service in the government or armed forces or trading in financial markets.[52] For example, other analysts have argued that too much human capital in the United States is devoted to trading paper assets rather than to creating new wealth in the economy.[53]

Elementary and secondary education achievement levels

For a large fraction of the workforce, formal educational training will cease prior to the college level. The skills developed at the elementary and secondary level will thus have an important effect on the productivity of the workforce. There is some evidence that U.S. students trail their foreign counterparts in acquisition of mathematics and science skills. This may be of particular importance in the future as jobs require greater technical knowledge and analytical skill. Two studies conducted by the International Association for the Evaluation of Educational Achievement (IEA) indicate that U.S. students generally trail their foreign counterparts in mathematics and science skills. Whereas the mean science achievement test scores[54] for 10-year-old students in the United States were comparable to the average across a seven-country panel, those scores for 14-year-old U.S. students were last in the group. When 17-year-olds were given achievement tests in specific subject areas, U.S. mean scores were last in biology, sixth out of seven in chemistry, but in the middle in physics. In mathematics achievement tests,[55] U.S. 13-year-olds finished next-to-last, and 17-year-olds finished last out of seven countries.

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[52] Kevin M. Murphy, Andrei Shleifer, and Robert W. Vishny, "The Allocation of Talent: Implications for Growth," *Quarterly Journal of Economics*, volume 106, May 1991, pp. 503-530.

[53] See Lawrence H. Summers and Victoria P. Summers, "When Financial Markets Work Too Well: A Cautious Case for a Securities Transactions Tax," Annenberg Conference on Technology and Financial Markets, February 28, 1989.

In a further round of assessment conducted by the IEA in 1986, 13-year-old students in the United States and 11 other populations (South Korea, Ireland, Spain, United Kingdom, and four Canadian provinces (with separate tests for English- and French-speaking students in three of the provinces)) were compared in mathematics and science. South Korea's 13-year-olds demonstrated the highest overall mathematics achievement, with the United States ranked significantly below the mean.[56] In South Korea, 78 percent of the 13-year-olds could use intermediate math skills to solve two-step problems. Only 40 percent of U.S. students could. Forty percent of the South Korean students understood measurement and geometry skills and could solve more complex problems. Less than 10 percent of the U.S. students had the same skills.[57] In science, students from South Korea and British Columbia (Canada) performed well above the mean; the U.S. students were again in a group of countries performing well below the mean. More than 70 percent of the South Korean and British Columbian students could successfully use scientific procedures and analyze scientific data. About 40 percent of the U.S. students could do so.

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[54] Gathered in a round of tests from 1983-86.

[55] Gathered in a round of tests from 1982.

[56] Data in this paragraph are from: Archie E. Lapointe, Nancy A. Mead, and Gary W. Phillips, *A World of Differences: An International Assessment of Mathematics and Science*, Educational Testing Service, Report No. 19-CAEP-01.

[57] But the self-perception of skills differed. About two-thirds of the U.S. students felt that they were "good at mathematics". Only 23 percent of the South Korean students felt the same.

Table 15.—Mean (Average) Science Achievement Test Scores in Selected Countries (10-year- and 14-year-olds), 1983–1986

Country	10-year-olds (max score = 24.0)	14-year-olds (max score = 30.0)
Australia	12.9	17.8
Canada [1]	13.7	18.6
Italy	13.4	16.7
Japan	15.4	20.2
Sweden	14.7	18.4
United Kingdom [2]	11.7	16.7
United States	13.2	16.5

[1] Includes pupils in English-language Canadian schools only.

[2] Includes pupils in English schools only.

Source: International Association for the Evaluation of Educational Achievement, *Science Achievement in Seventeen Countries, A Preliminary Report,* 1988, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

Table 16.—Mean (Average) Science Achievement Test Scores (17-year-olds) in Selected Countries, 1983–1986

Country	Percent correct biology	Percent correct chemistry	Percent correct physics
Australia	48.2	46.6	48.5
Canada [1]	45.9	36.9	39.6
Italy	42.3	38.0	28.0
Japan	46.2	51.9	56.1
Sweden	48.5	40.0	44.8
United Kingdom [2]	63.4	69.5	58.3
United States	37.9	37.7	45.5

[1] Includes pupils in English-language Canadian schools only.

[2] Includes pupils in English schools only.

Source: International Association for the Evaluation of Educational Achievement, *Science Achievement in Seventeen Countries, A Preliminary Report,* 1988, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

Table 17.—Mean (Average) Mathematics Achievement Test Scores in Selected Countries, 1982

Country	13-year-olds (percent correct)	17-year-olds (percent correct)
Canada [1]	50.9	44.5
France	53.6	NA
Japan	63.6	70.2
Sweden	43.4	57.5
United Kingdom [2]	48.8	51.3
United States	46.2	39.8

NA = not available.

[1] Average of scores for British Columbia and Ontario.

[2] Average of scores for England/Wales and for Scotland.

Note: Based on tests developed by the International Association for the Evaluation of Educational Achievement and administered in 1982. The scores are unweighted means for each nation of scores on each of the mathematics tests given at each age level.

For 13-year-olds, tests were given in arithmetic, algebra, geometry, statistics and measurement. For 17-year-olds, tests were given in number systems, sets and relations, algebra, geometry, elementary functions and calculus, and probability and statistics.

Source: International Association for the Evaluation of Educational Achievement, *The Underachieving Curriculum: Assessing U.S. School Mathematics from an International Perspective,* (Stipes Publishing Co., Champaign, Illinois) 1987, cited in Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

Much of the responsibility and funding for elementary and secondary education in the United States is carried on at the State and local levels. In 1985, the Federal expenditures on education totalled $21.3 billion, less than nine percent of the total school expenditures. At the elementary and secondary level, Federal expenditures were just over six percent of the total.[58] In fiscal year 1992, Federal budget outlays are projected to be $27.5 billion, a modest decline in real terms from the 1985 level. Internationally, the U.S. per pupil expenditures are relatively high. In Japan in 1983, the average expenditure per pupil for public primary and secondary education was $2,427. In the United States the comparable amount was about $2,730.[59] Because of the relatively small share of Federal education funding, increases in Federal education funding are unlikely to have a large impact on the overall amounts of spending per pupil.

Tax policy and human capital formation

Tax policy may provide an incentive for individuals to acquire more education or training by lowering its marginal cost. Because education, especially if not job-specific, can create external benefits whose value cannot be captured by the person receiving the education, individuals may choose to receive less education than is optimal from society's standpoint. Tax subsidies may help prod individuals toward investing in more education. Although tax policy may encourage individuals to invest in a greater quantity of education or training, it is difficult for tax policy to address the issue of the quality of education or training received.

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[58] *Statistical Abstract of the United States*, 1990, Table 209: "School Expenditures, by Source of Funds: 1970 to 1986."

[59] Kenneth Redd and Wayne Riddle, CRS Report, "Comparative Education: Statistics on Education in the United States and Selected Foreign Nations," November 14, 1988 (88-764 EPW).

At the individual level, a number of tax incentives currently exist for educational expenditures. Most are targeted toward post-secondary education. A taxpayer (subject to certain income limitations) may exclude from income the amount of redemptions of qualified U.S. savings bonds used to pay for higher education expenses (tuition and fees) of the taxpayer, the taxpayer's spouse, or a dependent of the taxpayer. An employee may receive up to $5,250 per year for tuition, fees, books and supplies from his or her employer's educational assistance program and exclude the amount from gross income regardless of whether the education is employment-related. (This provision is scheduled to expire at the end of 1991.) Amounts reimbursed by an employer for an employee's employment-related education are excludable from income and unreimbursed amounts may be taken as an itemized deduction (subject to the two-percent floor on miscellaneous deductions) if the education helps maintain current skills or is required by an employer. If the education helps qualify the employee for a new trade or business, it is not deductible. Scholarships for tuition, fees, books and supplies are excludable from gross income. Tuition payments made directly to the school on behalf of another individual are exempt from the gift tax.

At the production level, colleges, universities, and private elementary and secondary schools generally are organized as tax-exempt institutions. Such status also allows funds to be solicited as charitable contributions that are deductible to the donor.

V. OTHER FACTORS OF PRODUCTION AFFECTING COMPETITIVENESS

Implicit in the discussion of international competitiveness contained in this pamphlet is the notion that the national economy combines capital, labor, and other factors to produce an aggregate output, typically measured by GNP. This output can be consumed in the producing country or exported elsewhere. This section considers three specific factors other than capital and labor which affect aggregate productivity: natural resources and energy, the state of technology, and the impact of government regulations. Each of these factors may affect the level and trend of aggregate production, and may therefore play a role in the degree of international competitiveness enjoyed by a national economy.

A. Natural Resources and Energy

Natural resource endowments

The economy's endowment of natural resources may have profound effects on a nation's standard of living. It is appropriate to think of the natural resource endowment as a portion of the nation's economic wealth. To a large extent, nations are unable to influence the amount or quality of the natural resource deposits within their borders, meaning that these elements of national wealth may appear to randomly affect national wealth when discovered.[60] However, to the extent that nations differ in their abilities to exploit the value of natural resource deposits, similar deposits may be valued differently depending on the country in which they are located.[61]

As an example of how natural resource deposits contribute to trade flows and GNP levels and growth, consider the history of the Middle East OPEC nations since 1945. Prior to the discovery of the vast petroleum reserves, these countries were relatively poor, without much ability to participate (or compete) in international product markets. However, with the discovery of large deposits of oil, the per capita wealth in these countries soared, substantially increasing the role of these nations in international markets. When these resources were initially being exploited, capital flowed into these countries, as foreign firms began the process of drilling wells, constructing pipelines, and developing facilities to export the petroleum abroad. During this initial period of exploitation, these nations experienced chronic trade deficits, although it would be inappropriate to conclude that the competitive position of these nations was compromised by trade deficits. To the contrary, the observed trade deficits were absolutely necessary to exploit fully (and hence maximize the value of) the oil reserves. In this case, trade deficits over several years were consistent with a substantial increase in the standard of living for the inhabitants of these nations. Currently, these countries tend to run large trade surpluses as their oil reserves are exploited and exported.

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[60] For example, the discovery of gold in California in the 1840s caused an unexpected increase in U.S. national wealth.

[61] See, for example, Gavin Wright, "The Origins of American Economic Success, 1879-1940," *American Economic Review*, September 1990, who argues that U.S. manufacturing success can be traced, in large part, to the intensity in exploiting the U.S. natural resource endowment.

Natural resource endowments also may influence the development path taken by an economy. A striking example is provided in a recent paper by Landau and Rosenberg.[62] The authors describe how the discovery and exploitation of petroleum reserves in the United States presaged the development of the petrochemical industry. This industry was concentrated in the United States in large part because of the technological lead provided by the development of petroleum reserves in the United States. European countries had concentrated on developing similar chemical processes based on coal reserves. However, the relative ease of cracking and recombining petroleum (compared to coal) pushed the United States to a pre-eminent position in this industry. Until the technology matured, the United States maintained a technological lead over other nations in this area by constantly pushing its technology advantage domestically and exporting primarily dated technology.

Natural resource endowments add to national wealth to the extent they can be developed for less than the marginal cost of purchasing the same natural resources from abroad. One implication is that reductions in transportation costs may reduce the value of domestic natural resources, since suppliers in other countries may find it cheaper to transport their resources. Similarly, changes in technology used to extract natural resources may change the value of natural resource deposits. To the extent that technology can be developed to recover previously uneconomic deposits in a cost-effective manner, the nation possessing these deposits will see the value of these particular reserves increase. Of course an investment to develop this sort of technology should be undertaken only when the expected increase in the present value of the natural resource deposit exceeds the expected cost of developing the technology.

When international competitiveness is defined as the change in a country's standard of living relative to that of other countries, the extent to which natural resource endowments and exploitation of these deposits affect competitiveness is unclear. Certainly the discovery (or increased exploitation) of natural resources may increase the growth rate of a country's standard of living, which enhances competitiveness according to the definition given above. However, although a nation's endowment of natural resources increases its wealth, it may not directly influence the growth rate of the standard of living.

Energy

One important input in virtually all production processes is energy which is combined with varying amounts of capital and labor in order to minimize the cost of producing a given level of output. The price at which energy can be obtained will influence the degree to which a nation's economy is competitive in the production of energy-intensive goods. Some countries are endowed with relatively cheap sources of energy (e.g., hydroelectric power sources that can be easily harnessed), and others have made a point of pushing technological development intended to lower energy costs (e.g., promoting nuclear power plants). Both of these strategies are intended to improve a country's competitive position in the production of energy, and both have the ancillary effect of potentially lowering the cost of producing energy-intensive goods. However, it should be noted that energy is only one factor of production, and so low-cost energy does not necessarily translate into enhanced international competitiveness. In addition, exchange rate adjustments may partially offset the change in international competitiveness caused by selective taxation or subsidization of energy.

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[62] Ralph Landau and Nathan Rosenberg, "Innovation in Chemical Processing Industries," in *Technology and Economics*, (Washington, D.C.: National Academy Press), 1991.

At the same time that countries may have the reduction of energy costs as a strategic option, they also impose excise taxes on energy sources to discourage certain types of energy consumption. Table 18 presents a comparison of energy prices for several energy sources across several countries. These differential prices reflect natural resource endowments, transportation costs, and (perhaps most importantly) national decisions to tax or subsidize various energy sources.

Table 18.—Price of Energy in 1989 for Selected Countries

[Prices in dollars]

Country	Automotive fuels (per gallon)		Light fuel oil (per gallon)		Electricity (cents per kwh)		Coal per ton Industry
	Gasoline	Diesel	Industry	Household	Industry	Household	
Australia	$1.66	$1.47	NA	NA	4.2¢	6.7¢	$29.70
Belgium	2.64	1.47	$0.62	$0.73	NA	NA	32.90
Canada	1.63	1.52	.68	.96	3.9	4.8	55.23
Denmark	3.55	.96	.84	2.14	5.7	14.5	91.28
France	3.08	1.78	NA	1.18	NA	NA	77.48
West Germany	2.48	1.67	.77	.88	8.0	14.2	157.31
Italy	3.80	1.87	1.71	2.03	7.5	12.5	NA
Japan	3.19	1.84	.72	.97	13.0	18.7	62.46
Netherlands	2.96	1.33	NA	1.11	NA	NA	NA
Norway	3.17	1.07	.92	1.11	NA	6.2	NA
Sweden	2.82	1.90	1.25	1.47	4.7	6.6	71.32
Switzerland	2.45	2.37	.65	.73	7.4	9.2	53.07
United Kingdom	2.51	1.95	.67	.72	6.5	9.5	NA
United States	1.02	1.01	.61	.88	4.7	7.6	33.93

NA = not available.

Source: International Energy Agency, Organization for Economic Co-Operation and Development, *Energy Prices and Taxes*, First Quarter 1990.

From Table 18, it can be seen that, in the countries considered, costs of energy sources vary more widely in the household sectors than in the industrial sectors (e.g., compare diesel fuel vs. gasoline, household electricity vs. industrial electricity). This presumably reflects national concerns about international competitiveness in the production of energy-intensive goods.[63] A large part of the observed international differences is due to taxes designed to discourage consumption of particular energy sources. In every fuel listed, the United States is at or near the lowest price for industrial consumption of energy, reflecting the relatively low tax burden on fuels used in the United States

To a large extent, these differential energy prices do affect the overall consumption of energy. Table 19 presents the amount of energy consumed (measured in British thermal units (BTUs)) to produce a dollar of gross domestic product (GDP) in several countries. The United States is a major consumer of energy, and when measured against GDP, U.S. energy consumption is more than twice that of Japan and is about 50 percent greater than that of Germany. However, the United States is making progress in reducing the amount of energy used in manufacturing. For example, between 1970 and 1985, the end-use consumption of energy (measured in BTUs) per unit of industrial output (measured in 1982 dollars) dropped by more than 25 percent.[64] Similarly, the energy usage of most OECD countries declined over the past two decades as a result of the real energy price increases (and increased price volatility) that have occurred.

Table 19.—Comparison of Energy Usage for Selected Countries, 1989

Country	Energy consumption (quad. BTU)	Gross domestic product (billions)	Energy consumption (BTU per dollar GDP)
United States	81.14	$5,132.0	15,811
Japan	17.54	2,818.0	6,224
West Germany	12.11	1,189.1	10,184
France	8.55	958.2	8,923
United Kingdom	9.64	837.8	11,506
Italy	6.85	865.9	7,911
Canada	10.82	545.5	19,835
Netherlands	3.27	223.7	14,618
Sweden	2.14	189.4	11,299
Australia	3.51	291.4	12,045

Note: Energy consumption is total consumption of energy, including both household and industrial consumption.

Sources: Energy Information Annual, Department of Energy, *1989 International Energy Annual*, February 1991; OECD, *National Accounts 1960–89*, Volume 1, 1989.

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[63] Note, though, that competitiveness in particular industries is not the same as international competitiveness (as defined above). In fact, there are certainly instances where the promotion of exports in a particular industry runs counter to the notion of increasing the overall standard of living in a nation.

[64] Energy Information Administration, *Annual Energy Review 1989*, Department of Energy, May 1990, Table 12.

B. Role of Technology

Overview

Technological progress is often considered a key component in determining international competitiveness.[65] This discussion examines the assumptions on which the assertion rests. In an international economy characterized by perfect capital markets, it may be the case that technological progress leads to an enhanced economic position for a national economy if one of the following occurs.

(1) Technology is not easily transferred to firms in other countries (for example, patent laws may prevent the unfettered flow of technical information between countries).

(2) Current technological progress builds entirely (or to a large extent) on past technological advances, so the historical path of technology is important. This could occur if there is a learning curve for a particular technology, so that the longer a firm produces the product, the lower its production costs (in this case, the experience gained through production influences the pace of technological progress).

(3) Technology is combined with specific factors in unique ways that cannot be duplicated elsewhere (for example, if a particular technology can be most effectively utilized in a particular climate, in conjunction with certain indigenous materials that are not easily transported, or with certain labor skills that are found primarily in one country).

(4) Technological progress may be combined with economies of scale or economies of scope to increase the return to a particular technology.

All of these situations require that there be some barrier to the flow of technology between nations or some other feature preventing technology from being utilized as effectively in one country as in another. When such barriers do not exist, there is no reason to expect technological progress to enhance the competitive position of any single nation. In the absence of these barriers, investment in research and technology is expected to earn only the risk-adjusted rate of return available in the rest of the world economy. And, given perfect capital markets, the return to investments in research and development would be the same risk-adjusted rate of return as that earned by other competing investments.

Whether government policy can promote technological advance is the subject of much debate.[66] To the extent that the full benefit of advances in technology cannot be captured by a single firm (that is, to the extent research and development possesses the characteristics of a public good), one would expect firms to underinvest in research, relative to the social optimum. Government policies to correct this market failure generally involve either: (1) perfecting the property rights in technological advances through the grant of patents, copyrights or other means of providing temporary monopoly power (including the recognition of property rights in trade secrets), or (2) public subsidy of research efforts, through direct spending programs or through the tax system.

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[65] Representative examples of these arguments can be found in Richard Cyert and David Mowery, (eds.), *Technology and Employment: Innovation and Growth in the U.S. Economy*, National Academy of Sciences, Washington, 1987, and Ralph Landau and Dale Jorgensen, (eds.), *Technology and Economic Policy*, Ballinger Publishing Company, Cambridge, 1986.

[66] *See*, for example, Paul Romer, "Endogenous Technical Change," *Journal of Political Economy*, October 1990; Elhanan Helpman and Paul Krugman, *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition, and the International Economy*, (Cambridge: MIT Press), 1985.

The United States utilizes both means to promote advances in technology. Patents provide the inventor with an exclusive right to use or license the technology for a limited period of time (generally 17 years). Patent holders may also license the patented process or invention to others as a means of spreading the benefits of the new technology, while receiving compensation for developing that technology. The patent's limited lifetime results from a tradeoff between providing sufficient incentives for research and providing a reasonably fast spread of knowledge. Through the granting of specific property rights in technology, the patent system attempts to address the concern of underinvestment in research. Moreover, through the publication of patent grants, information regarding the feasibility of new processes is disclosed to others working in the field.

Government support of research

Additional subsidization of research projects occurs through direct spending programs. The 1992 Budget of the United States lists over $64 billion of Federal support for the conduct of research and development (including military support for research and development). Of this, approximately $12 billion is for basic research, with the remainder for applied research and development. In addition to these direct spending programs, the Federal government provides a tax credit to taxpayers who engage in research and development activities above a baseline level. This tax credit costs approximately $1 billion per year in foregone tax revenues. The quantity of additional research and development generated by this credit is the subject of some debate. However, the credit is designed to encourage investment in a cost-effective manner. Another incentive provided for research and development through the income tax system is the ability of businesses to expense the costs of research and development in the year incurred even though these expenses may result in the creation of a valuable asset with a lifetime extending over several years. While there is no simple method to compare the relative subsidies for research and development provided through the income tax system with subsidies provided through direct spending programs, it should be noted that the Federal government makes substantial use of both methods.

In addition, there may be an additional role for the government in the research process, that of acting as an intermediary between organizations that normally compete with each other. Government can support loose coalitions of firms in a partnership between the private and public sectors. One example of how the government may facilitate cooperation among participating firms is by relaxing antitrust policies, thereby permitting joint research ventures. Alternatively, government may act as a clearinghouse in transmitting research results from universities to private firms. In these ways, governments hope that economies of scale and scope in the research process can be exploited, leading to technological advance.

C. Government Regulatory Policy, Growth, and Competitiveness

The national income and product accounts, considered alone, may be an inaccurate indicator of national well-being. For example, it is sometimes asserted that governmental environmental regulations or environmental tax policy inhibit growth. It is true that, for example, installation of flue gas scrubbers on an electricity generation plant does not increase the output of electricity yet does require an investment. The traditional national income and product accounts would measure this investment expenditure (and the corresponding capital consumption expense in the future), but would not measure a change in output. To the extent that reduced flue gases improve future national health, there should be an increase in output resulting from the improved health of the nation's work force. At least part of this long-term health gain eventually would be measured in the national income and product accounts. Reduction in flue gases may also improve scenic vistas which arguably also increase national well-being, but are likely never to be measured as a marketable good or service. Consequently, while the investment in a flue gas scrubber probably does not increase the output of electricity, it may well increase the well-being of the nation. Similarly, safety regulations and other social policies that impose measurable economic costs may increase national welfare.

More generally, because firms or individuals do not bear the full social cost of their activities, the free market may not produce socially desirable outcomes. In the flue gas example, the firm does not face the cost of the environmental damage it may cause. As a result, the firm may create more pollution than is socially desirable. Economists call those social costs (or benefits) that are not taken into account in market transactions externalities. Regulation or taxation that reduces or eliminates externalities increases social welfare without a corresponding increase in measured GDP. This analysis suggests that if, relative to other countries, the United States expended more of its resources on environmental quality, worker safety, or the reduction of other negative externalities, measures such as growth of per capita GDP may understate the relative gain in the national welfare made by the United States. To the extent that other countries choose to spend more on environmental quality or worker safety than the United States, the opposite may be true.

Regulation or taxation to meet environmental safety or other goals may impose costs on producers. If producers in other countries are not subject to comparable costs, they may be able to sell the same good at a lower price in the United States than could a domestic producer. Some would argue that U.S. consumers gain if those countries are willing to sell goods cheaply in the United States. Moreover, such an outcome may increase world welfare if the foreign country places a lower value on environmental quality or health than does the United States. In such a situation residents of both countries can be made better off if such products are produced abroad and sold to the United States. However, in some circumstances production abroad may lead to a loss of domestic production, but no gain in social welfare. For example, production which leads to ozone depletion imposes externalities (*e.g.*, higher incidence of skin cancer) on the United States regardless of where the production occurs.

In addition, the increased imports of goods whose production creates externalities may lead to a current account deficit in the United States which ultimately would reduce the value of the dollar relative to other currencies and would increase the cost of the foreign goods in the United States. The higher price for foreign goods would make those domestic industries not subject to such regulations more competitive than foreign producers in the same industries, thus creating opportunities for exports. Thus, regulation in the United States should affect the relative size of different sectors of the economy and affect the composition of imports and exports. Regulation may also lead to an increase in the magnitude of imports and exports by creating new industries of specialization among countries.

Like environmental and safety policy, the minimum wage sometimes is criticized for raising costs of production and harming the competitive position of United States industry. Economists generally agree that a minimum wage reduces aggregate employment, and thereby will lead to a reduction in total output in the economy. The reduction in employment should primarily affect unskilled labor. A minimum wage may even increase the demand for skilled labor and capital as substitutes for unskilled low-wage labor. Because the minimum wage increases the cost of unskilled labor, the use of unskilled labor or the substitution of higher priced skilled labor and capital for unskilled labor will raise costs to affected businesses. However, the effects of minimum wage legislation are not equal across industries, affecting more those industries that rely on unskilled labor.

To the extent that the increase in production costs that may result from the minimum wage reduces the exports of the United States and increases imports of lower cost goods produced abroad by labor not subject to a minimum wage, the value of the dollar should fall. This should make the United States more competitive in the provision of goods that have a high content of skilled labor or capital. The minimum wage was unlikely to be a contributing factor to the deteriorating trade position of the United States in the 1980s. The real value of the minimum wage fell throughout the 1980s and in many industries and in many parts of the country unskilled workers were paid in excess of the then-prevailing minimum wage.

APPENDIX TO PART ONE: ADDITIONAL ECONOMIC DATA

Appendix Table 1.—Average Annual Rates of Growth of Per Capita Real GDP in Selected Countries, 1969–1988

[In percent]

Country	1969–78	1979–88	1969–88
United States	1.79	1.73	1.76
Japan	4.67	3.51	4.09
West Germany	3.11	1.89	2.50
France	3.37	1.56	2.46
United Kingdom	2.15	2.20	2.18
Italy	3.27	2.56	2.91
Canada	3.52	2.31	2.91
Belgium	3.70	1.81	2.75
Greece	5.21	1.10	3.16
Netherlands	2.87	.80	1.83
Sweden	2.10	2.02	2.06
Switzerland	1.34	1.66	1.50
Australia	1.92	1.77	1.85

Source: OECD, *National Accounts, 1960–89,* Volume 1, 1989, and OECD *Labor Force Statistics, 1968–1988,* 1990.

Appendix Table 2.—U.S. Gross Domestic Investment, Selected Years, 1929–1990

[In billions of dollars]

Year	Gross fixed investment				Change in inventories	Gross private domestic investment	Gross private domestic investment as a percentage of GNP
	Gross structures	Gross equipment	Total gross nonresidential investment	Gross residential investment			
1929	$5.5	$5.5	$11.0	$4.0	$1.7	$16.7	$16.1
1939	2.2	3.9	6.1	3.0	.4	9.5	10.4
1949	9.2	15.7	24.9	15.7	−3.1	36.5	14.0
1954	13.9	20.8	34.7	21.1	−1.6	54.1	14.5
1959	18.0	28.3	46.3	28.1	5.8	80.2	16.2
1964	22.7	38.7	61.4	32.8	5.4	99.6	15.3
1969	37.1	65.2	102.3	41.2	9.8	153.2	15.9
1970	39.2	66.1	105.2	40.5	3.1	148.8	14.6
1971	40.9	68.7	109.6	55.1	7.8	172.5	15.6
1972	44.5	78.5	123.0	68.6	10.5	202.0	16.7
1973	51.4	94.5	145.9	73.3	19.6	238.8	17.6
1974	57.0	103.6	160.6	64.8	15.4	240.8	16.3
1975	56.3	106.6	162.9	62.3	−5.6	219.6	13.7
1976	60.1	119.9	180.0	81.7	16.0	277.7	15.6
1977	66.7	147.4	214.2	108.6	21.3	344.1	17.3
1978	81.0	178.0	259.0	129.2	28.6	416.8	18.5
1979	99.5	203.3	302.8	139.1	13.0	454.8	18.1
1980	113.9	208.9	322.8	122.5	−8.3	437.0	16.0
1981	138.5	230.7	369.2	122.3	24.0	515.5	16.9
1982	143.3	223.4	366.7	105.1	−24.5	447.3	14.1

Appendix Table 2.—U.S. Gross Domestic Investment, Selected Years, 1929–1990—Continued

[In billions of dollars]

Year	Gross fixed investment				Change in inventories	Gross private domestic investment	Gross private domestic investment as a percentage of GNP
	Gross structures	Gross equipment	Total gross nonresidential investment	Gross residential investment			
1983	124.0	232.8	356.9	152.5	−7.1	502.3	14.7
1984	141.1	274.9	416.0	181.1	67.7	664.8	17.6
1985	153.2	289.7	442.9	188.8	11.3	643.1	16.0
1986	139.0	296.2	435.2	217.3	6.9	659.4	15.6
1987	133.7	311.2	444.9	226.3	28.3	699.5	15.5
1988	139.9	348.4	488.4	232.5	26.2	747.1	15.3
1989	146.2	365.7	511.9	231.0	28.3	771.2	14.8
1990 [1]	147.2	377.2	524.3	222.9	−2.2	745.0	13.6

[1] Estimate.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Appendix Table 3.—Net Investment Rates as a Percentage of GDP in Selected Countries, Selected Years, 1962–89

Country	1962	1967	1972	1975	1978	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	8.5	9.2	8.9	4.8	9.3	6.3	2.7	3.4	7.0	6.0	5.4	5.3	5.0	4.7
Japan	22.4	22.2	21.6	19.9	18.7	18.0	16.7	14.6	14.6	14.7	14.2	15.0	12.8	18.2
West Germany	18.7	12.8	15.6	8.6	10.0	8.8	7.2	7.8	7.9	7.0	7.2	7.2	8.2	9.4
France	15.7	17.7	16.7	12.3	11.6	9.3	9.3	7.2	6.3	6.3	7.2	7.4	8.5	8.9
United Kingdom	8.5	11.3	9.1	7.6	8.0	2.7	3.6	4.6	5.4	5.4	5.2	6.4	8.9	9.3
Italy	19.7	13.9	13.5	11.1	11.9	12.4	10.9	9.2	10.6	10.1	8.6	8.7	9.6	9.9
Canada	10.5	12.5	12.0	14.4	12.1	13.2	7.3	7.8	8.7	8.5	8.7	10.0	11.1	11.5
Belgium	11.5	13.7	12.2	12.6	12.4	8.5	8.1	5.8	6.8	5.3	5.6	6.8	8.5	10.6
Greece	15.9	16.9	23.3	19.9	20.0	16.8	12.7	13.0	10.8	12.6	10.1	8.0	10.0	10.5
Netherlands	16.5	18.5	15.5	11.5	12.9	8.2	7.7	8.1	8.8	9.5	9.5	8.6	9.3	10.5
Sweden	13.8	14.1	11.9	13.6	6.1	6.3	5.5	4.9	5.7	7.4	6.2	7.1	8.0	9.8
Switzerland	21.6	18.0	19.7	12.1	10.9	14.9	13.6	13.7	13.9	14.1	16.0	17.2	17.5	19.0
Australia	13.3	13.6	10.9	10.3	10.5	12.1	6.4	8.1	9.0	9.7	7.7	8.6	11.8	10.3

Source: OECD, *National Accounts, 1960–89,* Volume 1, 1989.

Appendix Table 4.—U.S. Gross and Net Business Saving in Billions of Dollars and Total Gross and Net Saving as a Percentage of GNP, Selected Years, 1929–1990

Year	Gross business saving (billions)	Capital consumption allowance (billions)	Net business saving (billions)	Gross national saving as percent of GNP	Net national saving as percent of GNP
1929	$12.3	$9.9	$2.4	$15.3	$5.8
1939	9.3	9.0	.3	9.7	−.1
1949	32.5	22.0	10.5	14.0	5.6
1954	42.3	32.5	9.8	13.9	5.1
1959	60.3	44.6	15.7	16.2	7.2
1964	79.3	53.9	25.4	16.7	8.4
1969	106.7	81.4	25.3	16.5	8.0
1974	157.6	137.5	20.1	16.8	7.6
1975	198.9	161.8	37.1	14.9	4.8
1976	225.6	179.2	46.4	15.9	5.8
1977	263.8	201.5	62.3	16.9	6.7
1978	298.9	229.9	69.0	18.2	7.9
1979	327.7	265.8	61.9	18.3	7.6
1980	341.5	303.8	37.7	16.3	5.1
1981	391.1	347.8	43.3	17.1	5.7
1982	403.2	383.2	20.0	14.1	2.0
1983	461.6	396.6	65.0	13.6	2.0
1984	509.5	415.5	94.0	15.1	4.1
1985	539.9	437.2	102.7	13.3	2.4
1986	544.6	460.1	84.5	12.4	1.5
1987	570.2	487.0	83.2	12.3	1.5
1988	605.7	514.3	91.4	13.5	2.9
1989	607.5	554.4	53.1	13.3	2.6
1990	604.8	575.7	29.1	12.0	1.5

Source: Department of Commerce, Bureau of Economic Analysis.

Appendix Table 5.—Net National Savings as a Percentage of GDP in Selected Countries, Selected Years, 1962–89

Country	1962	1967	1972	1975	1978	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	9.1	9.7	8.8	6.0	8.9	6.4	2.7	2.2	4.4	3.3	2.2	2.1	3.1	3.2
Japan	21.7	22.2	24.4	19.4	20.0	17.9	17.0	16.1	17.0	18.0	18.0	18.3	17.2	20.0
West Germany	18.6	15.0	16.0	9.6	11.4	8.0	7.7	8.5	9.2	9.6	11.6	11.3	12.4	14.1
France	17.3	18.4	17.6	13.2	13.0	8.5	7.2	6.4	6.3	6.4	7.6	7.3	8.2	8.8
United Kingdom	8.6	9.4	9.1	3.5	6.9	4.3	4.6	5.3	5.1	5.8	4.4	4.3	4.7	4.5
Italy	19.7	16.3	15.0	10.9	14.1	10.2	9.3	9.5	10.0	9.2	9.1	8.5	8.8	8.5
Canada	8.6	10.8	11.2	11.2	10.0	11.2	7.5	7.1	8.7	7.8	6.0	7.2	8.9	8.6
Belgium	12.1	14.5	15.8	12.4	11.1	4.8	4.4	5.0	6.2	5.6	7.6	8.1	10.0	11.7
Greece	14.3	14.7	22.0	16.3	18.6	16.1	8.3	8.0	6.7	4.4	4.8	4.9	8.0	5.7
Netherlands	17.4	17.9	18.3	14.0	12.0	10.4	10.8	11.2	12.9	13.6	12.7	10.5	12.4	13.4
Sweden	13.6	13.6	12.8	12.7	6.0	3.6	1.9	3.8	5.9	5.7	6.2	6.4	6.8	7.3
Switzerland	18.5	19.5	20.5	17.0	16.2	17.8	17.7	17.7	18.7	19.5	21.1	21.6	22.5	23.3
Australia	10.6	9.5	13.4	8.5	6.6	4.2	.7	3.0	3.4	2.3	2.4	4.7	7.4	6.3

Source: OECD, *National Accounts, 1960–1989,* volume 1, 1991.

Appendix Table 6.—Gross Saving As Percentage of GDP in Selected Countries, Selected Years, 1966–88

Country	1966	1969	1972	1975	1978	1981	1982	1983	1984	1985	1986	1987	1988	Average 1980–88
United States	20.2	20.0	19.3	17.9	20.8	19.5	16.5	15.6	17.0	15.8	14.7	14.5	15.1	16.4
Japan	32.1	36.7	38.3	32.3	32.3	31.2	30.4	29.7	30.7	31.6	31.9	32.3	33.3	31.4
West Germany	26.8	27.6	26.3	20.9	22.5	20.2	20.3	21.0	21.7	22.1	23.9	23.6	24.5	22.1
France	25.8	25.0	27.3	24.3	24.5	21.0	19.7	19.1	19.1	19.0	20.0	19.6	20.5	20.2
United Kingdom	19.6	21.6	18.5	14.7	18.5	16.8	16.9	17.2	16.9	17.7	16.3	16.3	16.4	16.9
Italy	22.8	24.4	25.5	23.8	26.3	22.6	22.1	22.2	22.5	21.8	21.3	20.7	20.9	22.1
Canada	23.9	23.0	22.4	22.6	21.6	23.3	20.2	19.4	20.8	20.2	18.5	19.6	21.1	20.7
Belgium	23.6	24.4	24.9	21.3	20.0	13.8	13.5	14.5	15.6	15.0	16.9	17.1	19.1	15.9
Greece	20.3	21.9	27.6	22.7	25.6	24.0	16.3	16.7	16.0	13.4	14.3	14.6	16.8	17.8
Netherlands	26.3	26.9	26.8	23.1	21.1	20.5	21.1	21.5	23.2	23.8	23.0	21.4	23.6	22.0
Sweden	25.2	23.8	23.4	23.7	17.6	15.3	14.0	16.0	17.9	17.6	17.9	18.1	18.6	17.0
Switzerland	30.2	31.1	31.6	27.0	26.0	27.0	26.9	26.6	27.2	28.1	29.7	30.3	31.2	28.1
Australia	25.1	26.4	26.7	22.9	21.7	20.3	17.4	19.2	19.5	19.5	20.0	21.9	23.9	20.4

Source: Organization for Economic Co-Operation and Development, *OECD Economic Outlook*, 40, December 1986, and *OECD Economic Outlook*, 48, December 1990.

PART TWO:[1],[2]

BACKGROUND AND ISSUES RELATING TO TAXATION OF INVESTMENT OUTSIDE OF THE UNITED STATES BY U.S. PERSONS

I. BACKGROUND

A. International Investment Position of the United States

Trends in international investment

After more than doubling since 1980, U.S.-owned assets in foreign countries ("outbound investment") reached a level of greater than $1.4 trillion by the end of 1989. This development has been overshadowed by even greater growth of foreign-owned assets in the United States ("inbound investment"). Between 1980 and 1989, foreign-owned assets in the United States more than quadrupled to a level of nearly $2.1 trillion by the end of 1989. Because of the rapid growth of inbound investment, the United States has moved (according to conventional measures) during the 1980s from a net creditor to a net debtor nation.

Table 1 summarizes these developments with a presentation of the international investment position of the United States. The international investment position is analogous to a balance sheet of the United States with respect to the rest of the world. The top part of the table presents the amount of U.S. assets held by foreigners, which represents the financial claims of the rest of the world on the United States ($2,076.3 billion in 1989). The next portion of the table presents the amount of assets of the United States abroad ($1,412.5 billion in 1989). The bottom line in the table nets the amount of U.S. assets abroad against the amount of assets of foreign persons in the United States (−$663.7 billion in 1989).

U.S.-owned assets in foreign countries (and foreign-owned assets in the United States) can be categorized as direct investment, nondirect investment (often referred to as portfolio investment), and official assets.

"Direct investment" constitutes assets over which the owner has direct control. The Department of Commerce defines an investment as direct when a single person owns or controls, directly or indirectly, 10 percent or more of the voting securities of a corporate enterprise or the equivalent interests in an unincorporated business.[3]

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[1] See also Part One of this pamphlet for a discussion of general issues in the competitiveness of the United States economy.

[2] See also Part Three of this pamphlet for a discussion of value-added taxes.

[3] The definition is arbitrary and used for data organization. Ownership of 11 percent of a corporation's stock is a direct investment; ownership of 9 percent is not. The definitions of direct and portfolio investment for tax purposes are different. This arbitrary definition may only ap-

Continued

Table 1.—International Investment Position of the United States at Year-end, Selected Years, 1975–1989

[In billions of dollars]

	1975	1980	1985	1989[1]
Foreign Assets in the United States	**220.9**	**500.8**	**1,066.9**	**2,076.3**
Direct investment	27.7	83.0	184.6	400.8
Private, non-direct investment	106.3	241.7	679.8	1,338.2
Treasury securities	4.2	16.1	88.0	134.8
Stocks	35.6	64.6	125.6	260.2
Bonds	10.0	9.5	82.3	229.6
Other debts, bank & non-bank	56.4	151.5	384.0	713.6
Official investment	86.9	176.1	202.5	337.2
U.S. Assets Abroad	**295.1**	**607.1**	**949.7**	**1,412.5**
Direct investment	124.1	215.4	230.3	373.4
Private, non-direct investment	113.0	301.2	588.6	880.1
Government assets	58.0	90.5	130.9	159.0
Net International Investment Position of the United States	**74.2**	**106.3**	**−117.2**	**−663.7**

[1] The 1989 date is preliminary.

Source: Russell B. Scholl, "The International Investment Position of the United States In 1989," *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, June, 1990, Table 2, p. 59.

After sluggish growth in the early 1980s, U.S. direct investment abroad grew by over 60 percent from 1985 through 1989 to reach a level of $373 billion.

The second, and largest, category of outbound investment is non-direct investment held by private (non-governmental) U.S. investors. This category, commonly referred to as portfolio investment, consists mostly of holdings of corporate equities, corporate and government bonds, and bank deposits. The portfolio investor generally does not have control over the assets that underlie the financial claims. In 1989, the $880 billion of portfolio assets of U.S. investors in foreign countries was more than double the recorded value of U.S. direct investment abroad.

The final category of U.S.-owned foreign assets is official assets held by the U.S. government and related entities. The level of U.S. official assets abroad was $159 billion at the end of 1989.

The difference between the value of U.S.-held assets abroad and the value of foreign-held assets in the United States is the net international investment position of the United States. This number is often used in the context of determining whether the United States is a "net debtor" or "net creditor" to the rest of the

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proximately reflect situations in which control is exercised. For example, a group of investors may act jointly without any single person having 10-percent ownership. Likewise, in some cases a 10-percent owner may have little or no direct control over the disposition of the assets in which an interest is held.

world. A net debtor nation is one for which foreign investors have more claims on domestic assets than domestic investors have abroad; a net creditor is in the opposite situation. Based on the Department of Commerce statistics similar to those presented in Table 1, the United States became a net debtor nation in 1985 and by the end of 1989 net indebtedness reached $664 billion. Due to a variety of measurement problems, however, the actual debtor or creditor status of the United States may be substantially different than as calculated.[4] While the exact debtor or creditor status may be questioned, the conclusion that foreign-owned assets in the United States are growing much faster than U.S.-held assets abroad is likely to be unaffected by any measurement issues.

B. Balance of Payments and Foreign Investment

Balance of payments

While the rapid growth of both foreign-held assets in the United States and U.S.-held assets abroad is symptomatic of the increasing integration of the global economy, the change in the net international position of the United States discussed above is directly related to the change in the U.S. trade balance in the 1980s. As has been widely reported, the merchandise trade deficit, which is defined as U.S. merchandise imports in excess of merchandise exports, has been over $100 billion per year since 1984. The current account as a whole, which compares exports of both goods and services to imports (plus unilateral remittances) was positive as late as 1981, but has been in deficit by over $100 billion from 1984 through 1989. Preliminary 1990 data indicate some possible improvement in the current account deficit.

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[4] U.S. Department of Commerce, Bureau of Economic Analysis, "Measuring the U.S. International Investment Position," *Survey of Current Business*, June, 1989, p. 40. See also, Michael Ulan and William Dewald, "The U.S. Net International Investment Position: Misstated and Misunderstood," in James Doran and William Niskanen, eds. *Dollars, Deficit, and Trade*, 1989. The direct investment data in Table 1 are recorded at historical cost rather than at current fair market value. Since the stock of foreign direct investment in the United States is on average newer than that of U.S. direct investment abroad, it is widely believed that the historical cost of U.S. direct investment abroad is substantially below actual current value, more so than the case of foreign direct investment in the United States.

Table 2.—International Transactions of the United States, Selected Years

[In billion of dollars]

	Average 1980–85	1986	1987	1988	1989	1990 [1]
Current account balance	−43.1	−133.2	−143.7	−126.5	−110.0	−99.3
+ Exports of goods and services	358.8	392.0	446.1	529.8	603.2	648.7
Merchandise	218.4	223.4	250.3	319.3	360.5	389.3
Services	58.1	80.0	91.2	102.8	115.2	130.6
Receipts from U.S. assets abroad	82.4	88.6	104.7	107.8	127.5	128.8
− Imports of goods and services	391.6	509.4	575.6	641.7	698.5	727.0
Merchandise	283.6	368.4	409.8	446.5	475.3	498.0
Services	52.6	74.0	83.4	89.7	94.7	107.7
Payments on foreign-owned U.S. assets	55.3	67.0	82.4	105.5	128.4	121.3
− Unilateral transfers	10.3	15.8	14.2	14.7	14.7	21.1
Capital account balance	22.0	121.9	141.8	137.2	87.6	26.2
+ Foreign investment in the U.S	92.1	221.6	218.0	219.3	214.7	87.5
Direct investment	18.7	34.1	46.9	58.4	72.2	25.7
Private, non-direct investment	68.0	151.9	126.1	122.0	133.7	31.0
Official	5.3	35.6	45.2	38.9	8.8	30.8

− U.S. investment abroad	70.5	99.7	76.2	82.1	127.1	61.3
Direct investment	8.0	26.3	44.2	17.5	31.7	36.4
Private, non-direct investment	53.2	71.6	42.2	64.0	71.2	25.7
Increase in Government assets	9.4	1.7	−10.1	.6	24.1	−.8
+ Allocation of special drawing rights	.4	0	0	0	0	0
Statistical discrepancy	21.1	11.3	1.9	−10.6	22.4	73.0
Note: Merchandise trade balance	−65.3	−145.1	−159.5	−127.2	−114.7	−108.7

[1] The 1990 data is preliminary.

Source: Russell Krieger, "U.S. International Transactions, First Quarter, 1989", *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, June, 1989, pp. 62–63, and Christopher L. Bach, U.S. International Transactions, Fourth Quarter and Year 1990. *Survey of Current Business*, U.S. Department of Commerce, Bureau of Economic Analysis, March 1991, pp. 34–68.

The balance of payments accounts, presented in Table 2, are analogous to a sources and uses of funds statement of the United States with the rest of the world. By definition, the current account balance, which consists primarily of the trade balance, should be exactly offset by the capital account balance, which measures the net inflow or outflow of capital to or from the United States. Serious problems of measurement cause the accounts to be somewhat mismatched in practice, but basic patterns may not be significantly distorted by these problems. Thus, for example, the net inflows of capital into the United States in the 1980s may be viewed as a reflection of the trade deficits.

C. Foreign Source Taxable Income, Foreign Taxes, and Foreign Tax Credits of U.S. Corporations

The United States imposes taxes on the worldwide income of U.S. corporations and grants tax credits for foreign income and profit taxes paid (or deemed paid) to foreign governments.[5] The first line of Table 3 shows that in 1986 (the latest year for which detailed tax return data on foreign source income is available), U.S. corporations paid or were deemed to have paid $23.1 billion of current foreign taxes and were allowed $22.3 billion of foreign tax credits. With $65.8 billion of foreign source income in 1986, U.S. corporations paid or were deemed to have paid tax to foreign governments at an average rate equal to 35 percent of their foreign source income.[6]

Foreign tax on outbound investment by industry

Table 3 also shows that the three major industry groupings which account for the vast majority of foreign source income and foreign tax credits, in order of size, are manufacturing (the sum of chemicals, machinery, and other manufacturing), petroleum, and banking. Of these major groupings, as a percentage of total foreign source income, petroleum—at an average rate well over 40 percent—paid (or was deemed to have paid) the most tax to foreign governments. The manufacturing industries (excluding petroleum) on average paid (or were deemed to have paid) tax at rates between 30 and 40 percent, while the banking industry paid (or was deemed to have paid) tax at a rate closer to 20 percent.

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[5] Taxes paid by a foreign corporation are to some extent deemed paid by a U.S. corporation that owns 10 percent or more of the stock in the foreign corporation, upon the payment by the foreign corporation of a dividend to the U.S. corporation.

[6] The actual foreign business operations controlled by U.S. corporations are often carried on by foreign subsidiaries. The table does not purport to illustrate directly the foreign tax payments made or tax rates faced by those foreign corporations in 1986. For example, tax deemed paid by a U.S. corporation in 1986 may have actually been paid by a foreign subsidiary prior to 1986.

Table 3.—Foreign Source Taxable Income, Foreign Taxes, and Foreign Tax Credit, By Industry, 1986

[In millions of dollars]

Industry	Foreign source taxable income	Current-year foreign tax payments or deemed payments available for credit	Foreign tax credit carryover	Foreign tax credit	Average foreign effective tax rate
All industries	65,809	23,103	5,364	22,260	35.1
Agriculture	89	16	11	13	17.5
Oil and gas extraction	1,348	748	304	568	55.5
Other mining	127	85	101	51	67.0
Construction	204	76	24	82	37.4
Chemicals	7,744	3,023	262	3,071	39.0
Machinery	9,597	3,628	97	3,092	37.8
Other manufacturing[1]	15,468	5,070	557	4,858	32.8
Transportation	1,702	224	17	232	13.2
Wholesale and retail trade[1]	1,540	527	64	498	34.2
Petroleum	16,317	7,231	3,274	7,216	44.3
Banking	8,107	1,725	426	1,769	21.3
Other finance	2,512	455	113	492	18.1
Services	1,043	294	115	317	28.2

[1] Excludes petroleum.

Source: Lissa Redmiles, "Corporate Foreign Tax Credit, 1986: An Industry Focus," *SOI Bulletin*, Fall 1990, Vol 10. No. 2, pp. 65–84.

Foreign taxes on outbound investment by country

Table 4 shows the amount of foreign taxes paid to the 21 countries from sources within which U.S. corporations earned the most foreign source income. Nearly one-half of total 1986 foreign tax payments or deemed payments were concentrated in the top five countries—Canada, the United Kingdom, Japan, West Germany, and Italy. The amount of foreign taxes paid or deemed paid as a percentage of foreign taxable income varied considerably among countries. For example, among the top five, averages rates varied from 44.3 percent in Canada to 29.0 percent in Italy. Of the entire 21 countries, the highest rate of 1986 tax for U.S. corporations was that of Brazil at 62.2 percent, and the lowest rate of tax was 3.6 percent in the Bahamas.

Table 4.—Current-Year Foreign Taxes and Foreign Source Taxable Income, by Selected Country, 1986

[In millions of dollars]

Country	Current-year foreign taxes	Foreign source taxable income	Current-year foreign taxes as a percent of foreign source taxable income
All countries	23,103	65,809	35.1
Canada	4,659	10,508	44.3
United Kingdom	2,552	8,263	30.9
Japan	2,071	5,670	36.5
West Germany	2,244	5,428	41.3
Italy	769	2,651	29.0
France	811	2,616	31.0
Belgium	634	2,070	30.6
Netherlands	622	2,035	30.6
Brazil	1,229	1,977	62.2
Norway	778	1,791	43.4
Indonesia	938	1,671	56.1
Australia	669	1,642	40.7
Switzerland	518	1,549	33.4
Mexico	545	1,041	52.4
Netherlands Antilles	153	899	17.0
Bahamas	29	800	3.6
Panama	175	791	22.1
South Africa	132	604	21.9
Nigeria	260	578	45.0
Spain	297	516	57.6
Philippines	87	480	18.1
All Other Countries	2,931	12,229	24.0

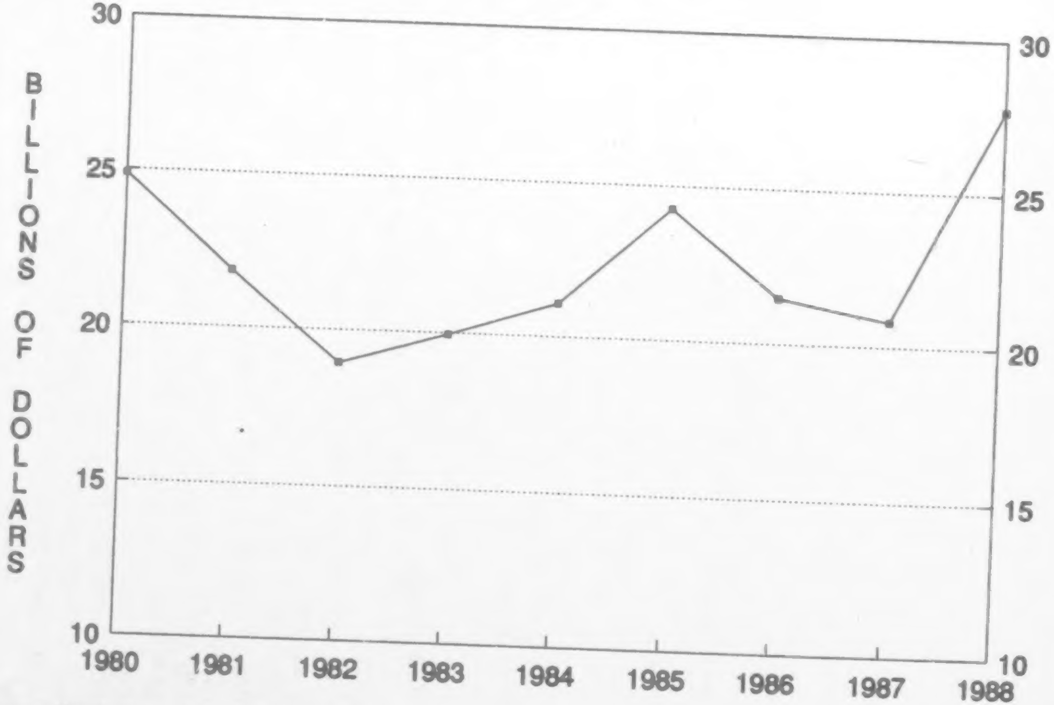
Source: Karla M. Daronco, "1986 Corporation Foreign Tax Credit: A Geographic Focus," *SOI Bulletin*, Winter 1990–1991, Vol. 10, No. 3, pp. 31–46.

Foreign tax credits over time

Throughout the 1980s, the total amount of foreign tax credits utilized annually by U.S. corporations has remained within a range roughly between $20-$27 billion. The pattern of credits since 1985 merits some additional discussion. Two major factors determining the overall amount of foreign tax credits are the amount of foreign source income and the foreign tax credit limitation. If all taxpayers paid foreign taxes at or near their foreign tax credit limitations, the reduction in maximum U.S. marginal corporate tax rates, from 46 to 40 percent in 1987, and again to 34 percent in 1988, should have *reduced* the amount of available foreign tax credits. However, the amount of deemed paid foreign tax credits depends on the amount of dividends repatriated. The decline in foreign tax credits in 1986 and 1987, and the nearly 40 percent increase in 1988, suggests that U.S. corporations may have delayed repatriations of earnings in 1986 and 1987 until the scheduled corporate tax rate reduction was fully effective in 1988.

Figure 1

Corporation Foreign Tax Credit
1980-1988



Source: Statistics of Income Division

II. DESCRIPTION OF RELEVANT PRESENT-LAW TAX RULES

A. Overview

The United States exerts jurisdiction to tax all income, whether derived in the United States or elsewhere, of U.S. citizens, residents, and corporations. By contrast, the United States taxes nonresident aliens and foreign corporations only on income with a sufficient nexus to the United States.[7] In the case of income earned by a U.S.-owned foreign corporation, generally no U.S. tax is imposed until that income is distributed to the U.S. shareholders as a dividend. However, in the case of certain foreign corporations with U.S. shareholders, various anti-deferral regimes contained in the Internal Revenue Code operate to tax U.S. shareholders currently on certain earnings of the foreign corporation (or impose an interest charge on the U.S. shareholder when income is realized at the shareholder level).

Generally, the United States cedes primary right to tax income derived from sources outside of the United States to foreign governments. Thus, the Code provides a credit against the U.S. income tax imposed on foreign source taxable income to the extent of foreign taxes paid on that income. To implement properly the rules for computing the foreign tax credit (and for other purposes), the statute and regulations set forth an extensive set of rules to determine the source, either U.S. or foreign, of items of income, and to allocate and apportion items of expense against those categories of income.

Other special rules which may affect an outbound investment of a taxpayer are provided in the Code. For example, the Code and regulations set forth rules for determining transfer prices with respect to related party transactions in order to assure those transactions are conducted at arm's length. Rules are provided to guide the measurement in U.S. dollars of income in foreign currencies and from transactions that involve foreign currency denominated assets and liabilities. In addition, certain tax incentives designed to promote exporting activities and incentives to establish operations in U.S. possessions are provided.

The tax rules of foreign countries that apply to inbound investments vary widely. For example, some foreign countries impose income tax on inbound investment at higher effective rates than are imposed by the United States on outbound foreign investment. In such cases, the allowance of a foreign tax credit by the United States is likely to eliminate any U.S. tax on income from operations in such a country. On the other hand, operations in countries with low statutory tax rates or rules that permit generous deductions, or in countries that provide tax incentives (e.g., tax holidays) to foreign investors are apt to be taxed at effective tax rates lower than U.S. rates. In such cases, the United States generally will tax a portion of the foreign earnings at some point unless, for example, the taxpayer is permitted to use excess foreign tax credits from operations in high-tax countries to offset the U.S. tax on the income from operations in the low-tax country.

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[7] For a discussion of the U.S. tax rules affecting investment in the United States by foreign persons, *see* Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS-1-90), January 23, 1990.

Under income tax treaties, the tax that would otherwise be imposed under applicable foreign law on certain foreign source income earned by U.S. persons may be reduced or eliminated. Moreover, U.S. tax on foreign source income may be reduced or eliminated by a treaty's provision that certain foreign taxes will be considered creditable for purposes of computing U.S. tax liability.

B. U.S. Taxation of Income Earned Through Foreign Corporations

1. Direct and indirect operations

U.S. citizens and residents and U.S. corporations (collectively, "U.S. persons") are taxed currently by the United States on their worldwide income, subject to a credit against U.S. tax on foreign income based on foreign income taxes paid with respect to such income. Income earned by a foreign corporation, the stock of which is owned in whole or in part by U.S. persons, generally is not taxed by the United States until the foreign corporation repatriates those earnings by payment to its U.S. stockholders. Therefore, two different sets of U.S. tax rules apply to U.S. taxpayers that control business operations in foreign countries; which rules apply depends on whether the business operations are conducted directly, for example, through a foreign branch, or indirectly through a separately incorporated foreign company.[8]

U.S. persons that conduct foreign operations directly (that is, not through a foreign corporation) include income (or loss) from those operations on the U.S. tax return for the year the income is earned or the loss is incurred. The United States taxes that income currently. The foreign tax credit (discussed below at II.C.) may reduce or eliminate the U.S. tax on that income, however.

U.S. persons that conduct foreign operations through a foreign corporation generally pay no U.S. tax on the income from those operations until the foreign corporation repatriates its earnings to the United States. The income appears on the U.S. owner's tax return for the year it comes home, and the United States imposes tax on it then. The foreign tax credit may reduce the U.S. tax.[9]

In general, two kinds of transactions are repatriations that end deferral and trigger tax. First, in the case of any foreign corporation, an actual dividend payment ends deferral; any U.S. recipient must include the dividend in income. Second, in the case of a "controlled foreign corporation" (defined below), an investment in U.S.

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[8] To the extent that foreign corporations operate in the United States rather than in foreign countries, they generally pay U.S. tax like U.S. corporations.

[9] The foreign corporation itself generally will not pay U.S. tax unless it has income effectively connected with a trade or business carried on in the United States, or has certain generally passive types of U.S. source income.

property, such as a loan to the lender's U.S. parent or the purchase of U.S. real estate, is also a repatriation that ends deferral (Code sec. 956). In addition to these two forms of repatriation, a sale of shares of a foreign corporation may trigger tax, sometimes at ordinary income tax rates (sec. 1248 or sec. 1246).

Since 1937, the Code has set forth one or more regimes providing exceptions to the general rule deferring U.S. tax on income earned indirectly through a foreign corporation. The aim of these regimes, although continually evolving between 1937 and today, is in part illustrated in the 1962 tax message of the President to the Congress. President Kennedy's message stated that

> deferral has served as a shelter for tax escape through the unjustifiable use of tax havens such as Switzerland. Recently more and more enterprises organized abroad by American firms have arranged their corporate structures—aided by artificial arrangements between parent and subsidiary regarding intercompany pricing, the transfer of patent licensing rights, the shifting of management fees, and similar practices which maximize the accumulation of profits in the tax haven—so as to exploit the multiplicity of foreign tax systems and international agreements in order to reduce sharply or eliminate completely their tax liabilities both at home and abroad.[10]

Today the Code sets forth the following anti-deferral regimes: the controlled foreign corporation rules (secs. 951–964); the foreign personal holding company rules (secs. 551–558); passive foreign investment company (PFIC) rules (secs. 1291–1297); the personal holding company rules (secs. 541–547); the accumulated earnings tax (secs. 531–537); and rules for foreign investment companies (sec. 1246) and electing foreign investment companies (sec. 1247). The operation and application of these regimes are discussed in the following sections.

2. Controlled foreign corporations

a. General definitions

A controlled foreign corporation is defined in the Code generally as any foreign corporation if U.S. persons own more than 50 percent of the corporation's stock (measured by vote or value), taking into account only those U.S. persons that own at least 10 percent of the stock (measured by vote only) (sec. 957).[11] Stock ownership includes not only stock owned directly, but also all stock owned indirectly or constructively (sec. 958).

Deferral of U.S. tax on undistributed income of a controlled foreign corporation is not available for certain kinds of income (sometimes referred to as "subpart F income") under the Code's subpart F provisions. When a controlled foreign corporation earns subpart F income, the United States generally taxes the corporation's 10-percent U.S. shareholders currently on their pro rata share of the subpart F income. In effect, the Code treats those U.S. shareholders as having received a current distribution out of the subpart F income. In this case, also, the foreign tax credit may reduce the U.S. tax.

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[10] Tax message of the President to the Congress (1962), cited in H.R. Rep. No. 1447, 87th Cong., 2d Sess. 57 (1962).

[11] A controlled foreign corporation is defined differently in the case of a foreign corporation engaging in certain insurance activities (*see* secs. 953(c) and 957(b)).

Subpart F income typically is income that is relatively movable from one taxing jurisdiction to another and that is subject to low rates of foreign tax. Subpart F income consists of foreign base company income (defined in sec. 954), insurance income (defined in sec. 953), and certain income relating to international boycotts and other violations of public policy (defined in sec. 952(a)(3)–(5)). Subpart F income does not include the foreign corporation's income that is effectively connected with the conduct of a trade or business within the United States, which income is subject to current tax in the United States (sec. 952(b)).

b. Foreign base company income

In general

Foreign base company income includes five categories of income: foreign personal holding company income, foreign base company sales income, foreign base company services income, foreign base company shipping income, and foreign base company oil-related income (sec. 954(a)). In computing foreign base company income, amounts of income in these five categories are reduced by allowable deductions (including taxes and interest) properly allocable, under regulations, to such amounts of income (sec. 954(b)(5)).

Foreign personal holding company income

One major category of foreign base company income is foreign personal holding company income (sec. 954(c)). For subpart F purposes, foreign personal holding company income generally consists of passive income such as interest, dividends, annuities, net gains from sales of property which does not generate active income, net commodities gains, net foreign currency gains, related party factoring income, and some rents and royalties. The following paragraphs discuss certain types of foreign personal holding company income in greater detail.

General rule applicable to sales of property which does not generate active income

The definition of foreign personal holding company income for subpart F purposes includes the excess of gains over losses from sales and exchanges of non-income producing property and property that gives rise to the following types of income: dividends and interest; rents and royalties other than active-business unrelated-party rents and royalties; and annuities.[12] Thus, for example, foreign personal holding company income includes gain on the sale of diamonds held for investment purposes prior to disposition. As another example, gain from the disposition of a patent that gave rise to unrelated-party active-business royalties is not treated as foreign personal holding company income under this rule, while gain from the sale of a patent licensed to a person related to the seller is so treated. Similarly, gain on the sale of land, buildings, or equipment used by the seller in an active trade or business of the seller at the time of the sale is not treated as foreign personal holding company income (Temporary Reg. sec. 1.954-2T(e)(3)).

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[12] Also included are sales and exchanges of interests in trusts, partnerships, and REMICs.

Stock and securities gains generally are treated as foreign personal holding company income. Thus, gain on the sale of stock in, for example, a foreign corporation, whether or not created or organized in the same foreign country as the selling company, constitutes foreign personal holding company income under subpart F.

The definition of foreign personal holding company income for subpart F purposes includes the excess of gains over losses from transactions (including futures, forward, and similar transactions) in any commodities. However, an exception from subpart F treatment applies to gains by a producer, processor, merchant, or handler of a commodity which arise from bona fide hedging transactions reasonably necessary to the conduct of its business in the manner in which such business is customarily and usually conducted by others. An additional exception is provided for transactions (not limited to hedging transactions) that occur in the active business of a foreign corporation substantially all of whose business is that of an active producer, processor, merchant, or handler of commodities.

The Code provides an exception from the current taxation rules for gains on property sales that are realized by regular dealers. Thus, for example, the gain of a regular art dealer on the sale of a painting does not constitute foreign personal holding company income. On the other hand, the gain of a company on the sale of a painting held as investment property generally is foreign personal holding company income: if, prior to its disposition, the painting merely was displayed in the corporate offices or held in storage, it would not have given rise to any income; if, prior to its disposition, the painting was leased temporarily by the corporation for compensation, such compensation would presumably not have been active rental income of the type excluded from foreign personal holding company income. Also excluded from foreign personal holding company income are gains and losses on bona fide hedging transactions that are reasonably necessary to the conduct of the business of being a dealer in the property sold. Gains from the sale or exchange of other property which, in the hands of the seller, is inventory property (sec. 1221(1)) are also excluded from the application of this rule.

Foreign currency gains

The definition of foreign personal holding company income for subpart F purposes also includes the excess of foreign currency gains over foreign currency losses attributable to section 988 transactions. Foreign currency gains and losses attributable to section 988 transactions are defined for purposes of subpart F as they are for purposes of the rules relating to the taxation of foreign currency exchange rate gains and losses (discussed below in II.F.).

An exception to current taxation under this provision is provided for hedging and other transactions that are directly related to the business needs of a controlled foreign corporation. For example, active foreign currency gains and losses arising from a controlled foreign corporation's business as an active foreign currency dealer are excluded from subpart F foreign personal holding company income. In addition, foreign currency gains arising from hedging its inventory generally would be directly related to the business needs of the controlled foreign corporation, but foreign currency gains arising from hedging a related person's inventory or other assets of that related person would not be directly related to the business needs of the controlled foreign corporation.

Dividends, interest, and securities gains of banking and insurance businesses

Current tax generally is imposed on foreign personal holding company income earned by banks and insurance companies. Dividends, interest, and gains received from unrelated persons by a controlled foreign bank or insurance company generally constitute foreign personal holding company income taxable currently to the U.S. shareholders of the corporation. Foreign personal holding company income for subpart F purposes also includes interest paid by a related person to a controlled foreign corporation even if both are engaged in a banking, financing, or similar business.

Tax deferral is available to a limited extent, however, for interest derived in a banking business in connection with certain export sales (sec. 954(c)(2)(B)). To qualify for this export financing exception, interest must be derived in the conduct of a banking business from financing the sale (or other disposition) for use or consumption outside the United States of property which is manufactured, produced, grown, or extracted in the United States by the interest recipient or a related person, and not more than 50 percent of the fair market value of which is attributable to products imported into the United States. A related person is defined for this purpose in the same manner as it is defined generally for subpart F purposes (sec. 954(d)(3)). (See discussion of related person exceptions, below.)

Income received by a foreign insurance company, including income derived from its investments of funds, generally is subject to taxation under section 953. (See discussion at "*Insurance income, in general,*" below.) Treasury regulations specify that taxation of an insurance company's income under section 953 takes precedence over taxation of that income as foreign personal holding company income under section 954 (Proposed Treas. Reg. sec. 1.953-6(g)). When dividends, interest, or securities gains derived by a controlled foreign insurance company are not taxed under section 953, they generally are taxed as foreign personal holding company income under section 954.

Income equivalent to interest

Foreign personal holding company income for subpart F purposes includes income equivalent to interest (sec. 954(c)(1)(E)). For this purpose, income equivalent to interest includes, for example, commitment fees for the actual lending of money.

Active business rents and royalties

The Code provides an exclusion from subpart F foreign personal holding company income for rents and royalties received in the active conduct of a trade or business from unrelated persons (sec. 954(c)(2)(A)). Under this active trade or business test, rents from a retail car-leasing business involving substantial maintenance, repair, and marketing activities, for example, are excluded from subpart F, while rental income from lease-financing transactions is not. Passive leasing income, like other rent and royalty income not received in the active conduct of a trade or business, generally is subpart F foreign personal holding company income.

Related person exceptions

Also excluded from subpart F income are certain dividends and interest received from a related corporation organized and operating in the same foreign country as the recipient, and certain rents and royalties received from a related corporation for the use of property within the country in which the recipient was created or organized (sec. 954(c)(3)). This exclusion, however, is subject to a look-through rule that takes into account the subpart F income of related-party payors. Under the look-through rule, interest, rent, and royalty payments do not qualify for the exclusion to the extent that such payments reduce subpart F income of the payor. Thus, if the income of the payor corporation consists entirely of nonsubpart F income, then the related party exclusions apply in full. However, to the extent that the payor corporation receives subpart F income which is reduced by its payment of interest, rent, or royalties, then such payment is treated as subpart F income to a related party recipient, notwithstanding the general rules of section 954(c)(3).

For this purpose, a related person is defined as any individual, corporation, trust, or estate that controls or is controlled by the controlled foreign corporation, or any individual, corporation, trust, or estate that is controlled by the same person or persons that control the controlled foreign corporation (sec. 954(d)(3)). Control with respect to a corporation means ownership of more than 50 percent of the corporation's stock (by vote or value). Control with respect to a partnership, trust, or estate means ownership of more than 50 percent of the value of the beneficial interests of the partnership, trust, or estate. Ownership includes stock or interests owned directly, indirectly, or constructively.

Other categories of foreign base company income

Other categories of foreign base company income include foreign base company sales and services income, consisting respectively of income attributable to related party purchases and sales routed through the income recipient's country if that country is neither the origin nor the destination of the goods, and income from services performed outside the country of the corporation's incorporation for or on behalf of related persons. Foreign base company income also includes foreign base company shipping income. Finally, foreign base company income generally includes "downstream" oil-related income, that is, foreign oil-related income other than extraction income.

Foreign personal holding company income generally includes rental or lease income. As discussed above, however, it does not include rents derived from unrelated parties in the active conduct of a trade or business. The provision of services related to the leased property may result in a characterization of the rental activity as the active conduct of a trade or business, as distinguished from a purely passive activity (Treas. Reg. sec. 1.954-2(d)(1)(ii)).

Foreign base company sales income generally consists of sales income deflected to a controlled foreign corporation located in a country that is neither the origin nor the destination of the goods (sec. 954(d)). For example, foreign base company sales income would include gain realized by a controlled foreign corporation that is incorporated in a low-tax foreign country on the sale of a U.S.-manufactured item to an unrelated party for use in a high-tax foreign country if the foreign corporation had purchased the item from its controlling U.S. shareholder. The application of the foreign base company sales rule in this example limits the ability of taxpayers to exploit the weaknesses of the transfer pricing rules (discussed below in II.E.) for U.S. tax purposes through the use of intermediate companies in low-tax countries.

Foreign base company services income includes income from services performed (1) for or on behalf of a related party and (2) outside the country of the controlled foreign corporation's incorporation (sec. 954(e)). This rule taxes U.S. shareholders who contrive to provide services through controlled corporations established in low-tax countries. Treasury regulations provide that the services of the foreign corporation will be treated as performed for or on behalf of the related party if, for example, a party related to the foreign corporation furnishes substantial assistance to the foreign corporation in connection with the provision of services (Treas. Reg. sec. 1.954-4(b)(1)(iv)).

Foreign base company shipping income includes income derived from or in connection with the use (or hiring or leasing for use) of any aircraft or vessel in foreign commerce, or from or in connection with the performance of services directly related to the use of any such aircraft or vessel, or from the sale or exchange or other disposition of any such aircraft or vessel (sec. 954(f)). Foreign base company shipping income also includes any income derived from a space or ocean activity.

Foreign base company oil-related income generally includes all oil-related income (as defined in sec. 907(c)(2) and (3) and discussed in II.C.5. below) other than income derived from a source within a foreign country in connection with either (1) oil or gas which was extracted from a well located in that foreign country, or (2) oil, gas, or a primary product of oil or gas which is sold by the foreign corporation or a related person for use or consumption within that foreign country, or is loaded in that country on a vessel or aircraft as fuel for that vessel or aircraft (sec. 954(g)). An exception is available for any foreign corporation that, together with related persons, does not constitute a large oil producer.

c. Insurance income

In general

Subpart F insurance income is another category of income that is subject to current taxation under subpart F (sec. 953). Subpart F insurance income includes any income attributable to the issuing (or reinsuring) of any insurance or annuity contract in connection with risks in a country other than that in which the insurer is created or organized.[13] For this purpose, a qualified insurance branch of a controlled foreign corporation may be treated as a corporation created or organized in the country of its location (sec. 964(d)).

The amount of income subject to current tax under subpart F as insurance income is the amount that would be taxed under subchapter L of the Code if it were the income of a domestic insurance company (subject to the modifications provided in sec. 953(b)). In addition, as described above, investment income associated with same-country risk insurance is also included in subpart F income as foreign personal holding company income. Thus, for an insurance controlled foreign corporation, deferral generally is limited to underwriting income (discussed in II.D.1., below) from same-country risk insurance.

For purposes of subpart F insurance income, a controlled foreign corporation is specially defined to include, in addition to any corporation that meets the usual test of 50-percent ownership by 10-percent shareholders (discussed above), any foreign corporation that satisfies a test of 25-percent ownership by 10-percent shareholders if more than 75 percent of the corporation's gross premium income is derived from the reinsurance or issuance of insurance or annuity contracts with respect to third-country risks (sec. 957(b)).

Prior to the 1986 Act, income from the insurance of U.S. risks was subject to current taxation under subpart F, as was income from the insurance of related persons' risks in countries outside the insurer's country of incorporation. Congress believed that income from the insurance of risks outside the insurer's country of incorporation should be subject to current taxation regardless of whether the risks are located in the United States and regardless of whether the insured is a related person. Insurance income generally represents the type of inherently movable income at which subpart F is aimed, since such income can frequently be routed through a corporation formed in any convenient jurisdiction. (Indeed, several countries have promoted themselves as jurisdictions for the formation of such corporations.) When a controlled foreign corporation insures risks outside of the country in which the corporation is organized, Congress viewed it appropriate to treat that income as if it has been routed through that jurisdiction primarily for tax reasons, regardless of whether the insured is a related or unrelated person. In all such cases, Congress viewed it appropriate to impose current U.S. taxation under subpart F.[14]

Related person (captive) insurance income

In addition, subpart F insurance income that is related person insurance income generally is taxable under subpart F to an expanded category of U.S. persons (sec. 953(c)). For purposes of taking into account such income under subpart F, the U.S. ownership threshold for controlled foreign corporation status is reduced to 25 percent or more. Any U.S. person who owns (directly, indirectly, or constructively) any stock in a controlled foreign corporation, whatever the degree of ownership, is treated as a U.S. shareholder of such corporation for purposes of this 25-percent U.S. ownership threshold and exposed to current tax on the corporation's related person insurance income.

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[13] In addition, subpart F applies to income attributable to an insurance contract in connection with same-country risks as the result of an arrangement under which another corporation receives a substantially equal amount of premiums for insurance of other-country risks.

[14] Staff of the Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, 100th Cong., 1st Sess. at 968.

The Code provides three exceptions to these special subpart F rules for related person (captive) insurers. First, related person insurance income of a captive insurer is not currently taxable by reason of these rules if the corporation's gross related person insurance income for the taxable year is less than 20 percent of its gross insurance income for the year.[15] Second, related person insurance income of a captive insurer is not currently taxable under this provision if less than 20 percent of the total combined voting power of all classes of stock of the corporation entitled to vote and less than 20 percent of the total value (both stock and policies) of the corporation during the taxable year are owned (directly or indirectly) by persons who are insured under any policies of insurance or reinsurance issued by the corporation, or by persons related to such persons. Persons that are insured indirectly (as well as directly) are included in the group of insured shareholders and shareholders related to insureds for purposes of determining whether the foreign corporation is less than 20 percent owned by insureds or persons related to insureds.[16] Third, a corporation which is a controlled foreign corporation solely by virtue of the special rules for captive insurers may elect to treat related person insurance income that would not otherwise be taxed as income effectively connected with the conduct of a U.S. trade or business, taxable under section 882, as income that is effectively connected with a U.S. trade or business. The income deemed to be effectively connected under this election is excluded from subpart F income. To make such an election, the foreign corporation must waive all U.S. treaty benefits (other than benefits with respect to the branch profits and branch interest taxes) with respect to its related person insurance income under any treaties (including treaties other than tax treaties) between the United States and any foreign country. Electing corporations continue to be taxed currently on their related person insurance income, inasmuch as effectively connected income is taxed currently.

The subpart F rules for captive insurers apply to both stock and mutual insurance companies. For this purpose, the policyholders of a mutual insurance company are treated as its shareholders.

Premiums received by a captive insurer that is subject to the expanded application of the subpart F rules, like premiums received by an ordinary offshore insurer that is subject to subpart F, generally remain subject to the excise tax on insurance premiums paid to foreign insurers (secs. 4371-4374), absent a treaty exemption. However, the excise tax does not apply to income treated as effectively connected with the conduct of a U.S. business under the "effectively connected" election. This is consistent with the exemption from the excise tax generally accorded to premiums that are effectively connected with the conduct of a U.S. business.

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[15] Insurance income is defined for this purpose as it generally is for subpart F purposes, except that the exclusion of income attributable to same-country risks does not apply.

[16] A related person is defined for this purpose in the same manner as it is for subpart F purposes generally (sec. 954(d)(3)).

Election by a foreign insurance company to be treated as a U.S. corporation

Any controlled foreign corporation engaged in the insurance business may elect to be treated as a U.S. corporation generally for all purposes under the Code (sec. 953(d)). A foreign corporation making the election is treated under the general rules of the Code as if it transferred its assets to a domestic corporation in a reorganization. Dividends paid out of earnings and profits of certain preelection years are treated as coming from a foreign corporation. An electing corporation that terminates its election is treated under the general rules of the Code as a domestic corporation that transferred its assets to a foreign corporation in a reorganization. (See discussion of transfers of property outside the United States in II.G.3., below.)

d. Certain income relating to international boycotts and other violations of public policy

Subpart F income also includes three categories of income relating to international boycotts and other violations of public policy. The first category includes the portion of the controlled foreign corporation's current income, other than amounts otherwise subject to current U.S. taxation, attributable (under Code sec. 999) to participation in an international boycott (sec. 952(a)(3)). Generally, a person is treated as participating in an international boycott if he agrees as a condition of doing business directly or indirectly with a foreign country, or a national of a foreign country, to do, or refrain from doing, certain things.[17] The second category includes the sum of any illegal bribes, kickbacks, or other payments by or on behalf of the corporation directly or indirectly to an official, employee, or agent in fact of a government, where such payments would be unlawful under the Foreign Corrupt Practices Act of 1977 if they were paid by a U.S. person (sec. 952(a)(4)).[18] The third category includes income derived from any foreign country during a period in which the taxes imposed by that country are denied eligibility for the foreign tax credit under section 901(j) pursuant to the implementation of U.S. foreign policy.[19]

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[17] Any of the following acts can be considered participating in an international boycott: (1) Refraining from doing business with or in a country which is the object of the boycott or with the government, companies, or nationals of that country, (2) refraining from doing business with any U.S. person engaged in trade in a country which is the object of the boycott or with the government, companies, or nationals of that country, (3) refraining from doing business with any company whose ownership or management is made up, all or in part, of individuals of a particular nationality, race, or religion, or to remove (or refrain from selecting) corporate directors who are individuals of a particular nationality, race, or religion, or (4) refraining from employing persons of a particular nationality, race, or religion. In addition, participation in (or cooperation with) an international boycott occurs if the person agrees as a condition of the sale of a product to the government, a company, or a national of a country, to refrain from shipping or insuring that product on a carrier owned, leased, or operated by a person who does not participate in or cooperate with an international boycott (sec. 999(b)(3)). Countries which may require participation in or cooperation with an international boycott include Bahrain, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, and the Republic of Yemen (IRS Notice 91-2, 1991-3 I.R.B. 18).

[18] Payments such as these are not deductible under the Code (sec. 162(c)).

e. Operating rules

Income inclusion

When a controlled foreign corporation earns subpart F income, the United States generally taxes the corporation's U.S. shareholders currently on their pro rata share of the subpart F income (sec. 951).[20] In the case of a corporation that is a controlled foreign corporation for its entire taxable year, and a U.S. shareholder that owns the same proportion of stock in the corporation throughout the corporation's taxable year, the U.S. shareholder's pro rata share of subpart F income is the amount that would have been distributed with respect to the shareholder's stock if on the last day of the corporation's taxable year the controlled foreign corporation had distributed all of its subpart F income pro rata to all of its shareholders. The pro rata share definition provides for adjustments where the corporation is a controlled foreign corporation for less than the entire year or where actual distributions are made with respect to stock the shareholder owns for less than the entire year.

In addition, the United States generally taxes the corporation's U.S. shareholders currently on their pro rata share of the corporation's increase in earnings invested in U.S. property for the taxable year. The determination of the corporation's increase in earnings invested in U.S. property is discussed further under "*Treatment of investments in U.S. property,*" below.

De minimis and full inclusion rules

None of a controlled foreign corporation's gross income for a taxable year is treated as foreign base company income or subpart F insurance income if the sum of the corporation's gross foreign base company income and gross subpart F insurance income for the year is less than the lesser of 5 percent of its gross income, or $1 million (sec. 954(b)(3)(A)). In introducing a fixed dollar amount into this de minimis rule in the 1986 Act, Congress did not believe that U.S. shareholders of controlled foreign corporations should avoid current U.S. tax on an amount of subpart F income equal to a fixed percentage of the gross income of the controlled foreign corporation without regard to the magnitude, in absolute dollar terms, of the amount of subpart F income. The Code provides that if more than 70 percent of a controlled foreign corporation's gross income is foreign base company income and/or subpart F insurance income, then all of its income is treated as foreign base company income or insurance income (whichever is appropriate) (sec. 954(b)(3)(B)). This 70-percent full inclusion rule does not apply, however, to income of a company that is a controlled foreign corporation only for purposes of the captive insurance company provision. (See Proposed Reg. sec. 1.953-6(k).)

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[19] The rules of section 901(j) apply to any foreign country (1) the government of which the United States does not recognize, unless such government is otherwise eligible to purchase defense articles or services under the Arms Export Control Act, (2) with respect to which the United States has severed diplomatic relations, (3) with respect to which the United States has not severed diplomatic relations but does not conduct such relations, or (4) which the Secretary of State has, pursuant to section 6(j) of the Export Administration Act of 1979, as amended, designated as a foreign country which repeatedly provides support for acts of international terrorism. Rev. Rul. 87-35, 1987-1 C.B. 182, as supplemented by Rev. Rul. 90-53, 1990-27 I.R.B. 8 lists the following countries as currently subject to the rules of Code section 901(j): Afghanistan, Albania, Angola, Cambodia, Cuba, Iran, Libya, North Korea, People's Democratic Republic of Yemen, South Africa, Syria, and Vietnam. In addition, this rule applies to South Africa during the period beginning January 1, 1988, and ending on the date the Secretary of State certifies to the Secretary of the Treasury that South Africa meets the requirements of section 311(a) of the Comprehensive Anti-Apartheid Act of 1986.

[20] Current taxation applies only if the foreign corporation is a controlled foreign corporation for an uninterrupted period of at least 30 days during the taxable year.

Related party factoring income (discussed in II.G., below) is subject to taxation under subpart F without regard to the general de minimis rule (Temporary Reg. 1.954-1T(b)(1)(ii)(B)).

Exception for certain income subject to high foreign taxes

Income otherwise subject to current taxation as foreign base company income can be excluded from subpart F if the income was not in fact routed through a controlled foreign corporation in which the income bore a lower tax than would be due on the same income earned directly by a U.S. corporation (sec. 954(b)(4)). Subpart F employs an objective test to determine whether income that has been earned through a controlled foreign corporation in fact has been subject to less tax than it would have borne if the income had been earned directly. Under this rule, subpart F income (other than foreign base company oil-related income) does not include items of income received by a controlled foreign corporation if the taxpayer establishes to the satisfaction of the Secretary that the income, measured under U.S. tax rules, was subject to an effective rate of foreign tax equal to at least 90 percent of the maximum U.S. corporate tax rate.

Section 954(b)(4) applies solely at the taxpayer's election. That is, the provision applies only if the taxpayer endeavors to establish to the Secretary's satisfaction that the income in question was subject to the requisite foreign tax, and the taxpayer succeeds in doing so. The Secretary may not apply the provision without the taxpayer's consent.

The 1986 Act modified the high-tax exception by replacing prior law's subjective "significant purpose" test with an objective rule. The regulations implementing the subjective rule of prior law provided an objective test that could be used to determine whether a controlled foreign corporation was used to reduce tax. Congress believed that such an objective test was preferable to the general subjective test previously provided in the statute. An objective test provides greater certainty for both taxpayers and the IRS. Congress believed that "significant purpose" tests tended to involve taxpayers and the IRS in prolonged disputes and litigation, since the correct result under such a rule is often difficult to determine. Although in some cases such an approach cannot be avoided, Congress believed that if movable types of income have been moved to a jurisdiction where they in fact bear a low rate of tax when compared to the U.S. rate, then it is appropriate to impose current U.S. tax on such income without any inquiry into the subjective motivations of the taxpayer.

Congress was aware that with respect to foreign base company sales and services income the regulations in effect at the time of the 1986 Act contained a rule that compared the tax paid in the controlled foreign corporation's country of incorporation with the lesser of the U.S. tax or the tax of the country in which such base company income was actually earned. Congress believed that such an approach added substantial complexity and that its retention would have defeated the effort to provide certainty. The rule that looked to the rate of tax in the country of ultimate use of goods or services required the determination of a hypothetical tax on a hypothetical tax base in that country. Thus, taxpayers (and the IRS) were required not only to apply a third country's tax laws, but to do so on the basis of a hypothetical set of tax attributes (income, deductions, basis of assets, etc.) of a business in that country. Congress believed that application of such a rule on a broad scale would create severe enforcement difficulties, since the IRS would be required to make the above determinations with respect to a large number of taxpayers claiming the benefits of such a rule. Furthermore, certain of the rules of subpart F represent judgments that certain types of income are particularly prone to manipulation, and that earning such income through a foreign corporation is by itself enough to justify a presumption that the potential for tax avoidance is too great to permit continued deferral of U.S. tax. Congress did not believe that the presence or absence of tax advantages in the foreign country of incorporation relative to that where income is earned was relevant to the validity of those judgments relating to avoidance of U.S. taxes; it believed that otherwise-applicable subpart F rules should generally apply regardless of relative foreign country tax considerations. Therefore, Congress concluded that it was appropriate to eliminate any comparison with a hypothetical rate of tax in the country of ultimate use, and to rely instead on a comparison with the U.S. rate of tax in all cases.

Congress intended, by making the operation of this rule more certain, to ensure that it could be used more easily than the subjective test of prior law. This is important because it lends flexibility to Congress's general broadening in 1986 of the categories of income that are subject in the first instance to current tax under subpart F. Congress's judgment was that because movable income often could be as easily earned through a U.S. corporation as through a foreign corporation, a U.S. taxpayer's use of a foreign corporation to earn that income may be motivated primarily by tax considerations. If, however, in a particular case no U.S. tax advantage is gained by routing income through a foreign corporation, then the basic premise of subpart F taxation is not met, and there is little reason to impose current tax under subpart F. Thus, as the scope of transactions subject to subpart F was broadened under the 1986 Act and may sweep in a greater number of non-tax motivated transactions, Congress expected that the flexibility provided by a readily applicable exception for such transactions would become a substantially more important element of the subpart F system.

Treatment of investments in U.S. property

As discussed above, a U.S. shareholder of a controlled foreign corporation generally is taxable on its pro rata share of the foreign corporation's subpart F income. In addition, a U.S. shareholder generally is taxable on its pro rata share of the foreign corporation's earnings and profits attributable to non-subpart F income to the extent of the increase for the year in such earnings that are invested in U.S. property (secs. 951(a)(1)(B) and 956). Such increase is measured by comparing the controlled foreign corporation's total amount of earnings invested in U.S. property at the close of the current taxable year with the corresponding amount at the close of the preceding taxable year.

The increase for the current taxable year in the earnings of a controlled foreign corporation invested in U.S. property generally is computed by subtracting the amount of the corporation's investment in U.S. property at the end of the prior year (to the extent that amount would have been a dividend if it had been distributed) from its investment in U.S. property at the end of the current year (to the extent that amount would have been a dividend if it had been distributed).

In addition, where earnings previously taxed under sections 951(a)(1)(B) and 956 are actually distributed, without reduction of the controlled foreign corporation's investment in U.S. property, subsequent earnings are included in the U.S. shareholder's income under sections 951(a)(1)(B) and 956 with no further increase in U.S. investment. This rule is intended to account for the fact that, in effect, new earnings are funding existing investments in U.S. assets, and should therefore be taxed.[21]

United States property generally is defined to include tangible property located in the United States, stock of a U.S. corporation, an obligation of a U.S. person, and the right to use certain intellectual property in the United States, with specified exclusions such as certain export property, obligations of the United States, international transportation property, and the stock of certain unrelated U.S. corporations (sec. 956(b) and (c)). Investments by a controlled foreign corporation in debt obligations of the foreign corporation's U.S. parent corporation, which mature and are repaid shortly before the close of the foreign corporation's taxable year and are replaced by new debt obligations shortly after the beginning of the foreign corporation's succeeding taxable year, may be considered in substance to be investments that are outstanding at the close of the foreign corporation's taxable year and thus to constitute an investment in U.S. property for purposes of section 956.[22]

Distributions of previously taxed income

Earnings and profits of a controlled foreign corporation that are (or previously have been) included in the incomes of the U.S. shareholders are not taxed again when such earnings are actually distributed to the U.S. shareholders (sec. 959(a)(1)). Similarly, such previously taxed income is not included in the incomes of the U.S. shareholders in the event that such earnings are invested in U.S. property (sec. 959(a)(2)). Previously taxed income actually distributed from a lower-tier controlled foreign corporation to a higher-tier controlled foreign corporation is disregarded in determining the subpart F income of the higher-tier controlled foreign corporation that is included in the income of the U.S. shareholders. In the event that stock in the controlled foreign corporation is transferred subsequent to the income inclusion but prior to the actual distribution of previously taxed income, the transferee shareholder is similarly exempt from tax on the distribution to the extent of the proven identity of shareholder interest.

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[21] "If this were not done it would be possible to retain the [U.S.] investments in the corporation and make actual distributions out of other property to the shareholders which would not be taxable to them." H. Rep. No. 1447, 87th Cong., 2d Sess. 64 n.1 (1962).

[22] Rev. Rul. 89-73, 1989-1 C.B. 258.

Distributions by a controlled foreign corporation are allocated first to previously taxed income, then to other earnings and profits (sec. 959(c)). Therefore, a controlled foreign corporation may distribute its previously taxed income to its shareholders, resulting in no additional U.S. income taxation, before it makes any taxable dividend distributions of any current or accumulated non-subpart F earnings and profits. For example, assume that a controlled foreign corporation earns in the taxable year $100 of foreign personal holding company income, which is subject to current inclusion under subpart F, and $100 of manufacturing income, which is not subject to U.S. income taxation until it is distributed to U.S. shareholders. If the corporation distributes $100 to its shareholders during the taxable year, that entire amount is treated as a distribution of the foreign personal holding company income, which is previously taxed income. Similarly, if the actual distribution of $100 does not occur until the next taxable year, the entire amount is treated as a distribution of the previously-taxed foreign personal holding company income, without regard to the earnings of the controlled foreign corporation in the succeeding taxable year.

Allowance of foreign tax credit

U.S. corporate shareholders of a controlled foreign corporation who include subpart F income in their own gross incomes are also treated as having paid the foreign taxes actually paid by the controlled foreign corporation on that income, to the same general extent as if they had received a dividend distribution of that income (sec. 960). Therefore, the U.S. corporate shareholders may claim foreign tax credits for those taxes to the same general extent as if they had received a dividend. (See the discussion of the indirect foreign tax credit, below in II.C.) Actual distributions by a controlled foreign corporation are not treated as dividends, and thus generally do not carry further eligibility for deemed-paid foreign tax credits, to the extent that the distributions are of previously taxed income.[23]

Individual U.S. shareholders of a controlled foreign corporation who include subpart F income in their own gross incomes may elect to be taxed as corporations on their subpart F income (sec. 962). Therefore, electing individual U.S. shareholders, like corporate shareholders, may claim foreign tax credits for the foreign taxes actually paid by the controlled foreign corporation on that income to the same general extent as if they had received a dividend.

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[23] Certain actual distributions of previously taxed income can carry further eligibility for foreign tax credits (secs. 960(a)(3) and (b)).

Adjustments to basis and computation of earnings and profits

The inclusion of an amount of a controlled foreign corporation's subpart F income in the gross income of a U.S. shareholder generally results in a corresponding increase in the shareholder's basis in the stock with respect to which the subpart F income was included (sec. 961(a)). In addition, the distribution of previously taxed income to a U.S. shareholder of a controlled foreign corporation generally results in a corresponding decrease in the shareholder's basis in the stock (sec. 961(b)).

The determination of the earnings and profits (or deficit in earnings and profits) of a controlled foreign corporation follows rules that are substantially similar to those applicable to domestic corporations (sec. 964(a)). One specific similarity is that any illegal bribes, kickbacks, or other payments that are not deductible under section 162(c) (such as payments that would be unlawful under the Foreign Corrupt Practices Act of 1977 if paid by a U.S. person) are not taken into account to reduce earnings and profits (or increase a deficit in earnings and profits).

Earnings and profits limitation

The subpart F income of a controlled foreign corporation is limited by its current earnings and profits (sec. 952(c)). Under this rule, current deficits in earnings and profits in any income category, including nonsubpart F income categories, reduce subpart F earnings and profits and, thus, subpart F income. In addition, accumulated deficits in a controlled foreign corporation's earnings and profits generated by certain activities in prior years may be used to reduce its subpart F income generated by similar activities in the current year.

One result of this limitation is that income inclusions from a controlled foreign corporation can be reduced by the extent to which any expenditure or loss of the foreign corporation is taken into account for purposes of earnings and profits but is not deductible in arriving at taxable income. However, the earnings and profits limitation on subpart F income is determined without regard to the rules that accelerate in some cases the recognition of earnings and profits from inventory assets accounted for under the LIFO method, from installment sales, and from contracts the income from which is accounted for under the completed contract method. By conforming the computation of earnings and profits more closely to the computation of taxable income, the Code ensures that subpart F income inclusions more closely match the controlled foreign corporation's taxable subpart F income.

Treatment of blocked income

As provided in Treasury regulations, amounts included in the income of a U.S. shareholder under subpart F do not include earnings and profits of a controlled foreign corporation that are prevented by currency or other restrictions or limitations imposed under the laws of any foreign country from being distributed to the U.S. shareholders (sec. 964(b)). Such tax treatment is based on the principle that blocked income should not be deemed distributed to the U.S. shareholders when it cannot be actually distributed.

Current Treasury regulations define foreign laws to include express statutory provisions, executive orders or decrees, rules or regulations of a governmental agency, court decisions, the actions of appropriate officials who are acting within the scope of their authority, or any similar official action (Treas. Reg. sec. 1.964-2(b)(3)).

Attribution of ownership

In determining stock ownership for purposes of the controlled foreign corporation rules, a U.S. person generally is considered to own a proportionate share of stock owned, directly or indirectly, by or for a foreign corporation, foreign partnership, or foreign trust or estate of which the U.S. person is a shareholder, partner, or beneficiary (sec. 958(a)).

Additional rules for constructive ownership apply for purposes of determining whether or not a U.S. person is a U.S. shareholder (within the meaning of sec. 951(b), as discussed above), whether or not the foreign corporation meets the relevant definition of control (within the meaning of secs. 957(a), 957(b), or 953(c)(1), as discussed above), and whether or not two persons are related (within the meaning of sec. 954(d)(3), as discussed above), but not for purposes of including amounts in a shareholder's gross income under section 951(a). These constructive ownership rules include, among other rules, provisions treating an individual as owning stock owned, directly or indirectly, by the individual's spouse, children, grandchildren, and parents; a 10-percent shareholder of a corporation as owning its proportionate share (100 percent, in the case of a more-than-50-percent shareholder) of stock owned, directly or indirectly, by the corporation; a partner or beneficiary as owning its proportionate share (100 percent, in the case of a more-than-50-percent partner or beneficiary) of stock owned, directly or indirectly, by the partnership or estate; a corporation as owning all stock owned, directly or indirectly, by 10-percent shareholders; a partnership or estate as owning all stock owned, directly or indirectly, by its partners or beneficiaries; and the holder of an option as owning the stock subject to the option (sec. 958(b)). However, these constructive ownership rules do not operate to treat stock owned by a nonresident alien individual as owned by a U.S. citizen or a resident alien individual (sec. 958(b)(1)).

f. Gain from certain sales or exchanges of stock in certain foreign corporations

If a U.S. person sells or exchanges stock in a foreign corporation, or receives a distribution from a foreign corporation that is treated as an exchange of stock, and, at any time during the five-year period ending on the date of the sale or exchange, the foreign corporation was a controlled foreign corporation and the U.S. person was a 10-percent shareholder (counting stock owned directly, indirectly, and constructively), then the gain recognized on the sale or exchange is included in the shareholder's income as a dividend, to the extent of the earnings and profits of the foreign corporation which were accumulated during the period that the shareholder held stock while the corporation was a controlled foreign corporation (sec. 1248).[24] For this purpose, earnings and profits of the foreign corporation do not include amounts that had already been subject to current U.S. taxation (whether imposed on the foreign corporation itself or the U.S. shareholders), such as amounts included in gross income under section 951, amounts included in gross income under section 1247 (applicable to foreign investment companies, which are discussed below in 5.c. of this section), amounts included in gross income under section 1293 (applicable to certain passive foreign investment companies, which are discussed below in part 4.c. of this section), or amounts that were effectively connected with the conduct of a trade or business within the United States (sec. 1248(d)). The Code provides certain special rules to adjust the proper scope and application of section 1248 (sec. 1248(e)-(i)).

Amounts subject to treatment under section 1248, in accordance with their characterization as dividends, carry deemed-paid foreign tax credits that may be claimed by corporate taxpayers under section 902 (discussed below in II.C.2.).

When originally enacted as part of the Revenue Act of 1962,[25] at a time when ordinary income was subject to higher U.S. tax than capital gains and the United States imposed higher rates of tax on ordinary income than it does today, section 1248 generally was perceived as an anti-avoidance rule that would impose higher tax burdens wherever it applied. In today's tax environment, however, where U.S. taxes on ordinary income are not significantly higher than on capital gains, and where most U.S. taxpayers with foreign operations earn more foreign tax credits than they are permitted to use (pursuant to the foreign tax credit limitation, discussed below in II.C.3.), the application of section 1248 is often beneficial to the taxpayer.

g. Information reporting requirements

Each U.S. person that controls a foreign corporation is required to report certain information to the IRS with respect to the foreign corporation (sec. 6038(a)). The required information pertains to the stock ownership, capitalization, assets and liabilities, and earnings of the corporation, as well as transactions between the corporation and related persons, plus such other information as may be specified in regulations. Penalties for failure to comply with the requirements of section 6038(a) include a dollar penalty (sec. 6038(b)) and a reduction in the amount of foreign tax credits that may be claimed by the controlling U.S. person (sec. 6038(c)). Control for these purposes means ownership of more than 50 percent of the vote or value of the stock, including stock owned indirectly or by attribution (sec. 6038(e)).

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[24] A special limitation applies in the case of the sale or exchange by an individual of stock held as a long-term capital asset (sec. 1248(b)).

[25] P.L. 87-834.

3. Foreign personal holding companies

In general

Congress enacted the foreign personal holding company rules (secs. 551-558) to prevent U.S. taxpayers from accumulating income tax-free in foreign "incorporated pocketbooks." If five or fewer U.S. citizens or residents own, directly or indirectly, more than half of the outstanding stock (in vote or value) of a foreign corporation that has primarily foreign personal holding company income, that corporation will be a foreign personal holding company. In that case, all the foreign corporation's U.S. shareholders are subject to U.S. tax on their pro rata share of the corporation's undistributed foreign personal holding company income.

Operating rules

A foreign corporation is a foreign personal holding company if it satisfies both a stock ownership requirement (sec. 552(a)(2)) and a gross income requirement (sec. 552(a)(1)). The stock ownership requirement is satisfied if, at any time during the taxable year, more than 50 percent of either (1) the total combined voting power of all classes of stock of the corporation that are entitled to vote, or (2) the total value of the stock of the corporation, is owned (directly, indirectly, or constructively) by or for five or fewer individual citizens or residents of the United States. The gross income requirement is satisfied initially if at least 60 percent of the corporation's gross income is foreign personal holding company income. Once the corporation is a foreign personal holding company, however, the gross income threshold each year will be only 50 percent until the expiration of either one full taxable year during which the stock ownership requirement is not satisfied, or three consecutive taxable years for which the gross income requirement is not satisfied at the 50-percent threshold.

Foreign personal holding company income generally includes passive income such as dividends, interest, royalties (but not including active business computer software royalties), and rents (if rental income does not amount to 50 percent of gross income) (sec. 553(a)). It also includes, among other things, gains (other than gains of dealers) from stock and securities transactions, commodities transactions, and amounts received with respect to certain personal services contracts. If a foreign personal holding company is a shareholder in another foreign personal holding company, the first company includes in its gross income, as a dividend, its share of the undistributed foreign personal holding company income of the second foreign personal holding company.

Excluded from characterization as foreign personal holding companies are corporations that are exempt from tax under subchapter F (sections 501 and following) of the Code, as well as certain corporations that are organized and doing business under the banking and credit laws of a foreign country (sec. 552(b)).

If a foreign corporation is a foreign personal holding company, all of its undistributed foreign personal holding company income is treated as distributed as a dividend on a pro-rata basis to all of its U.S. shareholders, including U.S. citizens, residents, and corporations (sec. 551(b)). That is, though only the five largest individual shareholders count in the determination of foreign personal holding company status, all individual shareholders as well as persons other than individuals may be subject to current tax on their pro rata shares of the undistributed income of the foreign personal holding company. The undistributed foreign personal holding company income that is deemed distributed is treated as recontributed by the shareholders to the foreign personal holding company as a contribution to capital. Accordingly, the earnings and profits of the corporation are reduced by the amount of the deemed distribution (sec. 551(d)), and each shareholder's basis in his or her stock in the foreign personal holding company is increased by the shareholder's pro rata portion of the deemed distribution (sec. 551(e)).

Attribution of ownership for characterization as a foreign personal holding company

The foreign personal holding company provisions contain constructive ownership rules that determine whether a foreign corporation is more than 50 percent owned by five or fewer U.S. citizens or residents. These rules generally treat an individual as owning stock owned, directly or indirectly, by or for his or her partners, brothers and sisters (whether by the whole or half blood), spouse, ancestors, and lineal descendants. However, ownership of stock actually owned by a nonresident alien is not attributed to the alien's U.S. brothers and sisters (whether by the whole or half blood), ancestors, and lineal descendants who do not own stock in the foreign corporation. For example, a foreign corporation 40 percent of whose shares belong to a U.S. citizen and 60 percent of whose shares belong to the nonresident alien sister of the U.S. citizen will be a foreign personal holding company if it meets the other criteria for foreign personal holding company status. Similarly, ownership of stock actually owned by a nonresident alien will not be attributed to the alien's U.S. partners if the alien's U.S. partners do not own, directly or indirectly, any stock in the foreign corporation and if the alien's partners do not include members of the same family as a U.S. citizen or resident who owns, directly or indirectly, any stock in the foreign corporation. For example, if the nonresident alien partner of a U.S. citizen owns 60 percent of a foreign corporation, while a second U.S. citizen (who is wholly unrelated to the first U.S. citizen and to the nonresident alien) owns the remaining 40 percent, the foreign corporation is not a foreign personal holding company.

These constructive ownership rules also apply to deem income to be foreign personal holding company income in two cases: (1) when a foreign corporation has contracted to furnish personal services that an individual who owns (or who owns constructively) 25 percent or more in value of the outstanding stock of the corporation has performed, is to perform, or may be designated to perform; and (2) when an individual who owns (or who owns constructively) 25 percent or more in value of the outstanding stock of the corporation is entitled to use corporate property and when the corporation in any way receives compensation for use of that property. This latter rule prevents foreign corporations from avoiding foreign personal holding company status by generating what appear to be large amounts of rental income.

Related person dividend and interest exception

For purposes of the foreign personal holding company rules, dividends and interest received from a corporation (1) related to the recipient, (2) organized in the same country as the recipient, and (3) having a substantial part of its assets used in its trade or business located in that same country generally are not treated as foreign personal holding company income (sec. 552(c)). Such related person dividends and interest are treated as foreign personal holding company income, however, if the dividend or interest is attributable to income of the related person which would be foreign personal holding company income.[26]

Thus, for example, where the entire amount of a foreign corporation's income is related person dividends and related person interest, and in any taxable year some of that income, but less than 60 percent (assuming the corporation has never been a foreign personal holding company), is attributable to income of the related person which would be foreign personal holding company income, the foreign corporation is not treated as a foreign personal holding company.

Information reporting requirements

Each U.S. citizen or resident who is an officer, director, or 10-percent shareholder of a foreign personal holding company is required to report to the Internal Revenue Service certain information with respect to the corporation (sec. 6035). The required information pertains to the stock ownership and income of the corporation, plus such other information as may be specified in regulations.

4. Passive foreign investment companies

The 1986 Act established an anti-deferral regime for passive foreign investment companies (PFICs) and established separate rules for each of two types of PFICs. One set of rules applies to PFICs that are "qualified electing funds," where electing U.S. shareholders include currently in gross income their respective shares of a PFIC's total earnings, with a separate election to defer payment of tax, subject to an interest charge, on income not currently received. The second set of rules applies to PFICs that are not qualified electing funds ("nonqualified funds"), whose U.S. shareholders pay tax on income realized from a PFIC and an interest charge which is attributable to the value of deferral.

a. Definition of passive foreign investment company

General definition

A passive foreign investment company is any foreign corporation if (1) 75 percent or more of its gross income for the taxable year consists of passive income, or (2) 50 percent or more of the average fair market value of its assets consists of assets that produce, or are held for the production of, passive income (sec. 1296(a)).[27] Pas-

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[26] A related person is defined by reference to the related person definition in subpart F (that is, sec. 954(d)(3)).

[27] A foreign corporation can elect to apply the asset test using the adjusted bases of the corporation's assets rather than the fair market value of its assets. Thus, under this election, a for-

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sive income for these purposes generally means income that satisfies the definition of foreign personal holding company income under subpart F (as discussed above in part 1 of this section); except as provided in regulations, however, passive income does not include certain active-business banking or insurance income, or certain amounts received from a related party (to the extent that the amounts are allocable to income of the related party which is not passive income, as discussed below) (sec. 1296(b)). Passive assets for this purpose are those assets that produce or are held for the production of passive income. Assets that are property which, in the hands of the foreign corporation, are inventory property (as defined in sec. 1221(1)), or are held by a regular dealer in that property, and are specifically identified as such inventory, are treated as nonpassive assets, even where that property generates foreign personal holding company income (as defined in sec. 954(c)), such as in the case of a securities broker-dealer that holds debt securities as inventory (Treasury Notice 89-81, 1989-2 C.B. 399).

Look-through rules

In determining whether foreign corporations that own subsidiaries are PFICs, look-through treatment is provided in certain cases (sec. 1296(c)). Under this look-through rule, a foreign corporation that owns, directly or indirectly, at least 25 percent of the value of the stock of another corporation is treated as owning a proportionate part of the other corporation's assets and income. Thus, amounts such as interest and dividends received from foreign or domestic subsidiaries are eliminated from the shareholder's income in applying the income test, and the stock or debt investment is eliminated from the shareholder's assets in applying the asset test.

In addition to the look-through rule applicable to 25-percent-owned subsidiaries, interest, dividends, rents, and royalties received from related persons that are not subject to section 1296(c) look-through treatment are excepted from treatment as passive income to the extent that, under regulations prescribed by the Secretary, those amounts are allocable to income of the payor that is not passive income (sec. 1296(b)(2)(C)).[28] As a corollary, the characterization of the assets that generate the income will follow the characterization of the income so that, for example, a loan to a related person will be treated as a nonpassive asset if the interest on the loan is treated as nonpassive income. Together, these rules provide that earnings of certain related corporations, which earnings would be excluded from foreign personal holding company income under the related-person same-country exception of subpart F (sec. 954(c)(3)) if distributed to the shareholders, are subject to look-through treatment whether or not the related party is 25-percent owned.

In addition, stock of certain U.S. corporations owned by another U.S. corporation which is at least 25-percent owned by a foreign corporation is treated as a nonpassive asset (sec. 1297(b)(8)). Under

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eign corporation with less than 50 percent passive assets by adjusted basis will not be a PFIC (assuming the income test is not met), even if its assets are 50 percent or more passive by fair market value. The election, once made, is revocable only with the consent of the Secretary.

[28] A related person is defined by reference to the related person definition in subpart F (that is, sec. 954(d)(3)).

this rule, in determining whether a foreign corporation is a PFIC, stock of a regular domestic C corporation owned by a 25-percent owned domestic corporation is treated as an asset which does not produce passive income (and is not held for the production of passive income), and income derived from that stock is treated as income which is not passive income. Thus, a foreign corporation, in applying the look-through rule available to 25-percent owned corporations, is treated as owning nonpassive assets in these cases. This rule does not apply, however, if, under a treaty obligation of the United States, the foreign corporation is not subject to the accumulated earnings tax, unless the corporation agrees to waive the benefit under the treaty. This rule is designed to mitigate the potential disparate tax treatment between U.S. individual shareholders who hold U.S. stock investments through a U.S. holding company and those who hold those investments through a foreign holding company. If a foreign investment company attempts to use this rule to avoid the PFIC provisions, it will be subject to the accumulated earnings tax and, thus, the shareholders of that company essentially will be denied deferral on the earnings of the foreign company, with an effect in some ways similar to application of the PFIC provisions.

Special exceptions from PFIC classification apply to start-up companies (sec. 1297(b)(2)) and corporations changing businesses during the taxable year (sec. 1297(b)(3)). In both such cases, a corporation may have a substantially higher proportion of passive assets (and passive income, in some cases) than at other times in its history.

b. General rule—nonqualified funds

General rule

United States shareholders in PFICs that are not "qualified electing funds" pay U.S. tax and an interest charge based on the value of tax deferral at the time the shareholder disposes of stock in the PFIC or on receipt of an "excess" distribution (sec. 1291). Under this rule, gain recognized on disposition of stock in a nonqualified fund or on receipt of an "excess" distribution from a nonqualified fund is treated as ordinary income and is treated as earned pro rata over the shareholder's holding period of his or her investment during the time the foreign corporation was a PFIC, and is taxed at the highest applicable tax rate in effect for each respective year. The interest charge imposed on gains and excess distributions is treated as interest for tax purposes.

Availability of foreign tax credits

Distributions from nonqualified funds are eligible for direct and deemed-paid foreign tax credits (under secs. 901 and 902) under the following method. The U.S. investor first computes the total amount of creditable foreign taxes with respect to the distribution it receives. This amount includes the amount of direct foreign taxes paid by the investor with respect to the distribution (for example, any withholding taxes) and the amount of the PFIC's foreign taxes deemed paid by the investor with respect to the distribution under section 902 (if any) to the extent the direct and indirect taxes are creditable under general foreign tax credit principles and the investor chooses to claim those taxes as a credit. The investor then determines the amount of the creditable foreign taxes that are attributable to the portion of the distribution that is an excess distribution (the "excess distribution taxes"). This determination is made by apportioning the total amount of creditable foreign taxes between the amount of the distribution that is an excess distribution and the amount of the distribution that is not an excess distribution on a pro rata basis. For purposes of determining the amount of the distribution from the PFIC (and the amount of the excess distribution), the gross-up under section 78 is included in the amount of money or other property received.

The U.S. investor then allocates the excess distribution taxes ratably to each day in the holding period of its stock. To the extent the taxes are allocated to days in taxable years prior to the year in which the foreign corporation became a PFIC and to the current taxable year, the taxes are taken into account for the current year under the general foreign tax credit rules. To the extent the taxes are allocated to days in any other taxable year (that is, to days in years on which the deferred tax amount is imposed), then the foreign tax credit limitation provisions of section 904 are applied separately to those taxes. Under this rule, the allocable taxes can reduce the aggregate increase in tax on which interest is computed, but not below zero. In the event the allocable taxes are in excess of any increase in tax, no interest will be due, but no carryover will be allowed since the foreign tax credit limitations are applied with respect to excess distributions occurring within each taxable year.

Definition of excess distribution

An "excess" distribution is any current year distribution in respect of a share of stock that exceeds 125 percent of the average amount of distributions in respect of the share of stock received during the 3 preceding years (or, if shorter, the total number of years of the taxpayer's holding period prior to the current taxable year) (sec. 1291(b)). The determination of an excess distribution excludes from the 3-year average distribution base that part of a prior-year excess distribution that is considered attributable to deferred earnings (i.e., that part of the excess distribution that was not allocable to pre-PFIC years and to the current year).

Anti-avoidance rules

Regulatory authority is provided to disregard any nonrecognition provision of the Code on any transfer of PFIC stock (sec. 1291(f)). For example, regulations may treat a gift of stock in a nonqualified fund to a non-taxpaying entity, such as a charity or a foreign person, as a disposition for purposes of those rules in order that the deferred tax and interest charge attributable to that stock not be eliminated.

c. Qualified electing funds

General rule

A U.S. person who owns stock in a PFIC may elect that the PFIC be treated as a "qualified electing fund" with respect to that shareholder (sec. 1295), with the result that the shareholder must include currently in gross income his or her pro rata share of the PFIC's total earnings and profits (sec. 1293). This inclusion rule generally requires current payment of tax, absent a separate election to defer tax.

Qualified fund election

The election for treatment as a qualified electing fund, which is made at the shareholder level, is available only where the PFIC complies with the requirements prescribed in Treasury regulations to determine the income of the PFIC and to ascertain any other information necessary to carry out the purposes of the PFIC provisions. The effect of the election is to treat a PFIC as a qualified electing fund with respect to each electing investor so that, for example, an electing investor will not be subject to the deferred tax and interest charge rules of section 1291 on receipt of a distribution if the election has been in effect for each of the PFIC's taxable years for which the company was a PFIC and which includes any portion of the investor's holding period.

Inclusion of income

The amount currently included in the income of an electing shareholder is divided between a shareholder's pro rata share of the ordinary income of the PFIC and net capital gain income of the PFIC. The characterization of income, and the determination of earnings and profits, is made pursuant to general Code rules with two modifications. These modifications apply only when the qualified electing fund is also a controlled foreign corporation and the U.S. investor in the fund is also a U.S. shareholder in the controlled foreign corporation (as both terms are defined under subpart F).

Under the first modification, if the U.S. investor establishes to the satisfaction of the Secretary that an item of income derived by a fund was subject to an effective rate of income tax imposed by a foreign country greater than 90 percent of the maximum rate of U.S. corporate tax, then that item of income is excluded from the ordinary earnings and net capital gain income of the fund for purposes of determining the U.S. investor's pro rata share of income.

Under the second modification, the qualified electing fund's ordinary earnings and net capital gain income do not include income from U.S. sources that is effectively connected with the conduct by the fund of a U.S. trade or business so long as that income is not exempt from U.S. taxation (or subject to a reduced rate of tax) pursuant to a treaty obligation of the United States.

Pro rata share of income

Pro rata share of income generally is determined by aggregating a PFIC's income for the taxable year and attributing that income ratably over every day in the PFIC's year. Electing investors then include in income for the period in which they hold stock in the PFIC their daily ownership interest in the PFIC multiplied by the amount of income attributed to each day.

As a special rule, the Code permits that, to the extent provided in regulations, if a qualified electing fund establishes to the Secretary's satisfaction that it maintains records that determine investors' pro rata shares of income more accurately than allocating a taxable year's income ratably over a daily basis (for example, by allocating a month's income ratably over a daily basis), the fund can determine the investors' pro rata shares of income on that basis. This provision is designed to allow those funds that maintain appropriate records to more accurately determine U.S. investors' pro rata shares of income, which may be important in cases where the investors own their stock for only parts of a year.

Distributions and basis adjustments

The distribution of earnings and profits that were previously included in the income of an electing shareholder under these rules is not treated as a dividend to the shareholder, but does reduce the PFIC's earnings and profits (sec. 1293(c)). The basis of an electing shareholder's stock in a PFIC is increased by amounts currently included in income under these rules, and is decreased by any amount that is actually distributed but treated as previously taxed under section 1293(c) (sec. 1293(d)).

Availability of foreign tax credit

Foreign tax credits are allowed against U.S. tax on amounts included in income from a qualified electing fund to the same extent, and under the same rules, as in the case of income inclusions from a controlled foreign corporation (sec. 1293(f)).

The Code provides special rules to characterize income inclusions from qualified electing funds for foreign tax credit purposes. In the case of a qualified electing fund that is also a controlled foreign corporation, where the U.S. person that has the income inclusion is a U.S. shareholder in the corporation (as defined under the subpart F rules), look-through treatment determines the foreign tax credit limitation characterization of the income inclusion. In addition, where the qualified electing fund is a noncontrolled section 902 corporation (as defined in sec. 904(d)(2)(E)) with respect to the taxpayer, the income inclusion is treated for foreign tax credit purposes as a dividend, and thus, is subject to the separate limitation applicable to those dividends. Where neither of the above conditions is satisfied, the income inclusion is characterized as passive income for foreign tax credit purposes.

Election to defer current payment of tax

U.S. investors in qualified electing funds may generally, subject to the payment of interest, elect to defer payment of U.S. tax on amounts included currently in income but for which no current distribution has been received (sec. 1294). An election to defer tax is treated as an extension of time to pay tax for which a U.S. shareholder is liable for interest.

The disposition of stock in a PFIC terminates all previous extensions of time to pay tax with respect to the earnings attributable to that stock. Disposition for this purpose generally means any transfer of ownership, regardless of whether the transfer constitutes a realization or recognition event under general Code rules. For example, a transfer at death or by gift of stock in a qualified electing fund is treated as a disposition for these purposes.

d. Special rules applicable to both types of funds

Coordination of section 1291 with taxation of shareholders in qualified electing funds

Gain recognized on disposition of stock in a PFIC by a U.S. investor, as well as distributions received from a PFIC in a year the PFIC is a qualified electing fund, are not taxed under the rules applicable to nonqualified funds (that is, sec. 1291) if the PFIC is a qualified electing fund for each of the fund's taxable years which begin after December 31, 1986 and which includes any portion of the investor's holding period (sec. 1291(d)(1)). Therefore, if for any taxable year beginning after December 31, 1986, a foreign corporation is a PFIC but is not a qualified electing fund with respect to the U.S. investor, gains and distributions in any subsequent year will be subject to the rules applicable to nonqualified funds. The section 1291 coordinating provision as it relates to distributions prevents a fund from retaining its annual income while it is not a qualified electing fund, and then distributing the accumulated income in a subsequent year after it becomes a qualified electing fund without incurring any interest charge.

Any U.S. person who owns stock in a PFIC which previously was not a qualified electing fund for a taxable year but which becomes one for the subsequent taxable year may elect to be taxed on the unrealized appreciation inherent in his or her PFIC stock up through the first day of the subsequent taxable year, pay all prior deferred tax and interest, and acquire a new basis and holding period in his or her PFIC investment (sec. 1291(d)(2)). Thereafter, the shareholder is subject to the rules applicable to qualified electing funds.

An alternative election is available to shareholders in a controlled foreign corporation. Under this alternative, instead of recognizing the entire gain in the value of his or her stock, a U.S. person that holds stock (directly or indirectly under the attribution rules) in a controlled foreign corporation (as defined for subpart F purposes) that is a PFIC and that becomes a qualified electing fund can elect to include in gross income as a dividend his or her share of the corporation's earnings and profits accumulated after 1986 and since the corporation was a PFIC. Upon this election, the U.S. person's stock basis is increased by the amount included in income and the shareholder is treated as having a new holding period in his or her stock. Thereafter, the shareholder is subject to the rules applicable to qualified electing funds. The total amount treated as a dividend under the above election is an excess distribution and is to be assigned, for purposes of computing the deferred tax and interest charge, to the shareholder's stock interest on the basis of post-December 31, 1986 ownership.

Attribution of ownership

In determining stock ownership, a U.S. person is considered to own his or her proportionate share of the stock of a PFIC owned by any partnership, trust, or estate of which the person is a partner or beneficiary (or in certain cases, a grantor), or owned by any foreign corporation if the U.S. person owns 50 percent or more of the value of the corporation's stock (sec. 1297(a)). However, if a U.S. person owns any stock in a PFIC, the person is considered to own his or her proportionate share of any lower-tier PFIC stock owned by the upper-tier PFIC, regardless of the percentage of his or her ownership in the upper-tier PFIC. Under regulations, any person who has an option to acquire stock may be treated as owning the stock.

Anti-avoidance rules

The Code provides authority to the Secretary to prescribe regulations that are necessary to carry out the purposes of the PFIC provisions and to prevent circumvention of the interest charge (sec. 1297(d)). In addition, if a U.S. person is treated as owning stock in a PFIC by virtue of the attribution rules, regulations may treat any distribution of money or other property to the actual holder of the stock as a distribution to the U.S. person, and any disposition (whether by the U.S. person or the actual holder of the stock) which results in the U.S. person being treated as no longer owning the stock as a disposition by the U.S. person (sec. 1297(b)(5)).

5. Other anti-deferral regimes

a. Personal holding companies

In addition to the corporate income tax, the Code imposes a tax at the rate of 28 percent[29] on the undistributed income of a personal holding company (sec. 541). This tax substitutes for the tax that would have been incurred by the shareholders on dividends actually distributed by the personal holding company. A personal holding company generally is defined as any corporation (with certain specified exceptions) if (1) at least 60 percent of its adjusted gross income for the taxable year is personal holding company income, and (2) at any time during the last half of the taxable year more than 50 percent in value of its outstanding stock is owned, directly or indirectly, by or for not more than five individuals (sec. 542(a)).

This definition is very similar to that of a foreign personal holding company, discussed above, but does not depend on the U.S. citizenship or residence status of the shareholders. However, the specified exceptions to the definition of a personal holding company preclude the application of the personal holding company tax to, among others, any foreign personal holding company, most foreign corporations owned solely by nonresident alien individuals, and any PFIC (paragraphs (5), (7), and (10) of sec. 542(c)). Therefore, the personal holding company tax could apply to only a small class of foreign corporations, such as foreign corporations with at least 60 percent but less than 75 percent passive-type income, and majority owned by a group of five or fewer individuals of whom at least one is a U.S. person and at least one of whom is a nonresident alien.

b. Accumulated earnings tax

In addition to the corporate income tax, the Code also imposes a tax, at the rate of 28 percent, on the accumulated taxable income of any corporation (with certain exceptions) formed or availed of for the purpose of avoiding income tax with respect to its shareholders (or the shareholders of any other corporation), by permitting its earnings and profits to accumulate instead of being distributed (secs. 531, 532(a)). The specified tax-avoidance purpose generally is determined by the fact that the earnings and profits of the corporation are allowed to accumulate beyond the reasonable needs of the business (sec. 533). Like the personal holding company tax, the accumulated earnings tax acts as a substitute for the tax that would have been incurred by the shareholders on dividends actually distributed by the corporation.

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[29] A technical correction to the Omnibus Budget Reconciliation Act of 1990 has been introduced in Congress that would change the personal holding company tax rate to 31 percent, to conform to the increase in the top individual tax rate from 28 to 31 percent. Section 102(a)(4) of H.R. 1555, 102nd Cong., 1st Sess.; section 102(a)(4) of S. 750, 102nd Cong., 1st Sess.

The accumulated earnings tax does not apply to any personal holding company, foreign personal holding company, or PFIC (sec. 532(b)). These exceptions, along with the current inclusion of subpart F income in the gross incomes of the U.S. shareholders of a controlled foreign corporation, have resulted, in practice, in very limited application of the accumulated earnings tax to foreign corporations.

c. Foreign investment companies

A foreign investment company generally is defined as any foreign corporation that either is registered under the Investment Company Act of 1940 (as amended) as a management company or as a unit investment trust, or is engaged (or holding itself out as being engaged) primarily in the business of investing, reinvesting, or trading in securities or commodities or any interest (including a futures or forward contract or option) in securities or commodities, at a time when 50 percent or more of the vote or value of the stock was held (directly or indirectly) by U.S. persons (sec. 1246(b)). In the case of the sale or exchange of stock in a foreign investment company, gain on the sale generally is treated as ordinary income to the extent of the taxpayer's ratable share of the undistributed earnings and profits of the foreign investment company (sec. 1246(a)). However, if a foreign investment company so elected by December 31, 1962, it can avoid the application of section 1246 to its shareholders by annually distributing at least 90 percent of its taxable income (determined as if the foreign corporation were a domestic corporation), and complying with other information-reporting and other administrative requirements as the Secretary of the Treasury deems necessary (sec. 1247).

6. Coordination among anti-deferral regimes

The Code provides that, if an item of income of a foreign corporation would be includable in the gross income of a U.S. shareholder both under the controlled foreign corporation rules and under the foreign personal holding company rules, that item of income is included only under the controlled foreign corporation rules (sec. 951(d)). This rule of precedence operates only to the extent that the controlled foreign corporation rules and the foreign personal holding company rules overlap on an item-by-item basis. Income includible under only one set of rules (foreign personal holding company rules or subpart F rules) is includible under that set of rules. A taxpayer taxable under subpart F on amounts other than subpart F income (on such items as withdrawals from foreign base company shipping income and investments in U.S. property) is taxable under subpart F whether or not the taxpayer is also taxable on the undistributed foreign personal holding company income of the foreign corporation under the foreign personal holding company rules.

If an item of income of a foreign corporation would be includable in the gross income of a U.S. shareholder both under the controlled foreign corporation rules and under the rules relating to the current taxation of income from certain passive foreign investment companies, that item of income is included only under the controlled foreign corporation rules (sec. 951(f)). In addition, if an item of income of a foreign corporation would be includable in the gross income of a U.S. shareholder both under the controlled foreign corporation rules and under the rules relating to the current taxation of income from electing foreign investment companies, that item of income is included only under the foreign investment company rules (sec. 951(c)). Any amount that is taxable under only one set of rules is included in gross income pursuant to that set of rules.

In the case of a foreign corporation that is both a foreign personal holding company and a passive foreign investment company, to the extent that the income of the foreign corporation would be taxable to a U.S. person both under the foreign personal holding company rules and under section 1293 (relating to current taxation of income of certain passive foreign investment companies), that income is treated as taxable to the U.S. person only under the foreign personal holding company rules (sec. 551(g)).

In the case of a PFIC that is a qualified electing fund, the amount of income treated as a dividend on a sale or exchange of stock in a controlled foreign corporation (under sec. 1248) does not include any amount of income included previously under the qualified electing fund rules to the extent that that amount of income has not been distributed from the PFIC prior to the sale or exchange of the stock.

In the case of a PFIC that is a qualified electing fund and that owns stock in a second-tier PFIC that is also a qualified electing fund, amounts distributed by the second-tier fund to the first-tier fund that have been included previously in income by U.S. investors—because they are deemed to own stock in the second-tier fund—are not to be included in the ordinary earnings of the first-tier fund. This rule prevents U.S. persons from including amounts in income twice. This relief provision also applies in the case of a second- (or lower-) tier PFIC that is a qualified electing fund and that is also a controlled foreign corporation. In this case, amounts that are included in a U.S. person's income under the subpart F provisions and that would have been included under the qualified electing fund provisions (but for the coordination provision of sec. 951(f)) are prevented from being included in income again under this relief provision.

In the case of a PFIC that is not a qualified electing fund, the Code eliminates the potential for double taxation by providing for proper adjustments to excess distributions for amounts that are taxed currently under the Code's other current inclusion rules. Thus, for example, excess distributions will not include any amounts that are treated as previously taxed income under section 959(a) when distributed by a controlled foreign corporation that is also a PFIC that is not a qualified electing fund.

As noted above, the personal holding company tax does not apply to any foreign personal holding company or PFIC, and the accumulated earnings tax does not apply to any personal holding company, foreign personal holding company, or PFIC.

Section 1246 does not apply to the earnings and profits of any foreign investment company for any year after 1986 if the company is a PFIC for that year (sec. 1297(b)(7)). In addition, an electing foreign investment company under section 1247 is excluded from the definition of a PFIC (sec. 1296(d)).

C. Rules to Avoid Double Taxation

The United States taxes U.S. persons on their worldwide income, including their income from sources outside of the United States. Congress enacted the foreign tax credit in 1918 to prevent U.S. taxpayers from being taxed twice on their foreign source income; once by the foreign country where the income is earned, and again by the United States. The foreign tax credit generally allows U.S. taxpayers to reduce the U.S. income tax on their foreign income by the foreign income taxes they pay on that income. The foreign tax credit does not operate to offset U.S. income tax on U.S. source income.

A credit against U.S. tax on foreign income is allowed for foreign taxes paid or accrued by a U.S. person (Code sec. 901).[30] In addition, a credit is allowed to a U.S. corporation for foreign taxes paid by certain foreign subsidiary corporations, and deemed paid by the U.S. corporation upon a dividend received by, or certain other income inclusions of, the U.S. corporation relating to earnings of the foreign subsidiary (the "deemed-paid" or "indirect" foreign tax credit) (sec. 902).

The foreign tax credit provisions of the Code are elective on a year-by-year basis. In lieu of electing the foreign tax credit, taxpayers generally are permitted to deduct foreign taxes (sec. 164(a)(3)). No deduction of foreign taxes is permitted, however, for any creditable taxes paid or accrued during a taxable year with respect to which the taxpayer elects application of the foreign tax credit (sec. 275(a)(4)(A)).

1. Creditability of foreign taxes

In general

The foreign tax credit is available only for income, war profits, and excess profits taxes paid or accrued (or deemed paid) to a foreign country or a U.S. possession and for certain taxes imposed in lieu of them (secs. 901(b) and 903). Other foreign levies generally are treated as deductible expenses only. To be creditable, a foreign levy must be the substantial equivalent of an income tax in the U.S. sense, whatever the foreign government that imposes it may call it.[31] To be considered an income tax, a foreign levy must be directed at the taxpayer's net gain.[32]

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[30] A taxpayer may elect to use the accrual basis of accounting for purposes of determining when foreign taxes are eligible for the credit notwithstanding the method of accounting generally employed in keeping its books (sec. 905(a)). Adjustments are required in certain cases where the amount of taxes accrued differs from the amount of taxes actually paid by the taxpayer (see sec. 905(c)).

Treasury regulations promulgated under sections 901 and 903 provide detailed rules for determining whether a foreign levy is creditable (Treas. Reg. secs. 1.901-1 through 1.901-3, and 1.903-1). In general, a foreign levy is creditable only if the levy is a tax and its predominant character is that of an income tax in the U.S. sense. A levy is a tax if it is a compulsory payment under the authority of a foreign country to levy taxes and is not compensation for a specific economic benefit [33] provided by a foreign country, such as the right to extract petroleum owned by the foreign country. The predominant character of a levy is that of an income tax in the U.S. sense if the levy is likely to reach net gain in the normal circumstances in which it applies and the levy is not conditioned on the availability of a foreign tax credit in another country.[34]

Dual capacity taxpayers

Taxpayers who are subject to a foreign levy and also receive, directly or indirectly, a specific economic benefit from the levying country are referred to as dual capacity taxpayers (Treas. Reg. sec. 1.901-2(a)(2)(ii)). Dual capacity taxpayers may obtain a credit only for that portion of the foreign levy that they can establish is a tax and is not compensation for the specific economic benefit received. A taxpayer may so establish that a payment is a tax rather than compensation for a specific economic benefit received, under either a facts and circumstances method or under an elective safe harbor method.

Under the facts and circumstances method, the taxpayer must establish, based on all the relevant facts and circumstances, the amount it paid pursuant to the levy that is not paid in return for a specific economic benefit (Treas. Reg. sec. 1.901-2A(c)(2)). The amount so established is the creditable portion of the levy.

The safe harbor method provides the taxpayer with a formula to determine the amount of the levy that qualifies as a creditable tax (Treas. Reg. sec. 1.201-2A(e)(1)). In a country that imposes no general tax and imposes a levy in excess of the effective U.S. income tax rate, the formula effectively exempts from U.S. tax the income subject to the levy.[35]

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[31] *Biddle v. Commissioner*, 302 U.S. 573 (1938).

[32] *Bank of America National T. & S. Association v. United States*, 459 F.2d 513 (Ct. Cl. 1972).

[33] A specific economic benefit is any economic benefit that is not made available on substantially the same terms to substantially all persons who are subject to the income tax that is generally imposed by the levying country, or if there is no such generally imposed income tax, any economic benefit that is not made available on substantially the same terms to the population of the country in general (Treas. Reg. sec. 1.901-2(a)(2)(ii)(B)). An economic benefit includes property; a service; a fee or other payment; a right to use, acquire or extract resources, patents or other property that a foreign country owns or controls; or a reduction or discharge of a contractual obligation. It does not include the right or privilege merely to engage in business generally or to engage in business in a particular form.

[34] A levy that is so conditioned is referred to as a "soak-up" tax.

[35] Under the safe harbor formula, the amount paid in a taxable year pursuant to a qualifying levy that is treated as a creditable tax is equal to:

$(A - B - C) \times D / (1 - D)$.

A = the amount of gross receipts as determined under the foreign law applicable in computing the actual payment amount of the levy;

B = the amount of costs and expenses as determined under the foreign law applicable in computing the actual payment amount of the levy;

Continued

Subsidies

Under the Code, a foreign tax on income from a transaction is not treated as a creditable tax to the extent that the amount of the tax is used, directly or indirectly, by the country imposing the tax to provide a subsidy by any means (such as through a refund or credit) to the taxpayer, a related person (within the meaning of section 482), any party to the transaction, or any party to a related transaction, and the subsidy is determined, directly or indirectly, by reference to the amount of the tax, or the base used to compute the tax (sec. 901(i)).

Taxes in lieu of income, war profits, and excess profits taxes

A tax paid in lieu of a tax on income, war profits, or excess profits may constitute a creditable foreign tax (sec. 903). A foreign levy is a creditable tax "in lieu of" an income tax under the regulations only if the levy is a tax and is a substitute for, rather than an addition to, a generally imposed income tax (Treas. Reg. sec. 1.903-1(b)). A foreign levy may satisfy the substitution requirement only to the extent that it is not conditioned on the availability of a foreign tax credit in another country.

Denial of foreign tax credit with respect to taxes paid to certain foreign countries

Pursuant to special rules applicable to taxes paid to certain foreign countries, no foreign tax credit is allowed for income, war profits, or excess profits taxes paid, accrued, or deemed paid to a country which satisfies specified criteria, to the extent that the taxes are with respect to income attributable to a period during which such criteria were satisfied (sec. 901(j)). Nor can such income be sheltered from U.S. tax by other creditable foreign taxes.[36] Taxes treated as noncreditable under this provision are permitted to be deducted notwithstanding the fact that the taxpayer elects use of the foreign tax credit for the taxable year with respect to other taxes.

2. Deemed-paid foreign tax credit

U.S. corporations owning at least 10 percent of the voting stock of a foreign corporation are treated as if they had paid a share of the foreign income taxes paid by the foreign corporation in the year in which that corporation's earnings and profits become subject to U.S. tax as dividend income of the U.S. shareholder (sec. 902(a)). This is the "deemed-paid" or "indirect" foreign tax credit.

A U.S. corporation may also be deemed to have paid taxes paid by a second or third tier foreign corporation. That is, where a foreign corporation described in the previous paragraph pays a dividend to the U.S. corporation, then for purposes of deeming the U.S.

C = the total amount actually paid in the taxable year by the dual capacity taxpayer pursuant to the levy; and

D = the tax rate (expressed as a decimal) that is applicable in computing tax liability on the taxpayer's tax base under the generally imposed tax of the foreign country. If the foreign country does not impose a general tax, then D = the lower of the rate imposed on the levy or the highest U.S. marginal corporate income tax rate (Treas. Reg. sec. 1.901-2A(e)(5)).

[36] See the discussion of the specified criteria and countries affected by this rule in II.B.2., above.

corporation to have paid foreign tax, the foreign corporation may be deemed to have paid a share of the foreign taxes paid by a second-tier foreign corporation of which the first foreign corporation owns at least 10 percent of the voting stock, and from which the first foreign corporation received dividends. The same principle applies between a second and a third-tier foreign corporation. No taxes paid by a second- or third-tier foreign corporation are deemed paid by the first foreign corporation unless the product of the percentage ownership at each level from the U.S. corporation down equals at least 5 percent (sec. 902(b)). Foreign taxes paid below the third tier are not eligible for the deemed-paid credit.

Earnings and profits of a foreign corporation generally are not subject to U.S. tax as income of a U.S. shareholder until repatriated through an actual dividend distribution. However, the subpart F rules (discussed in II.B.2., above) treat certain undistributed earnings and profits of a controlled foreign corporation as a current income inclusion of U.S. shareholders who own 10 percent or more of the controlled foreign corporation's voting stock (taking into account attribution rules). A deemed-paid credit generally is also available to the U.S. shareholder with respect to such inclusions (sec. 960(a)).[37] Moreover, a deemed-paid credit generally is also available with respect to inclusions under Code section 1293 from passive foreign investment companies by U.S. corporations meeting the requisite ownership threshold (sec. 1293(f)).[38]

Subpart F inclusions are deemed included directly in the income of the U.S. shareholder. For example, a subpart F inclusion from a second- or third-tier foreign subsidiary is not treated as passing through any upper-tier corporation; rather, it is an inclusion directly from the lower-tier subsidiary. Thus, the foreign taxes and earnings and profits of that subsidiary are undiluted by and are not combined with those of any upper-tier company in determining the deemed-paid credit. The credit is not available for inclusions from subsidiaries below the third tier. Percentage ownership requirements, similar to those applicable in the case of actual dividends, apply in order for inclusions from lower-tier subsidiaries to qualify for the deemed-paid credit.

For either an actual distribution or a subpart F inclusion, the amount of foreign tax eligible for the indirect credit is computed as a fraction of the foreign tax paid by the foreign corporation. The numerator of the fraction is the U.S. corporate shareholder's actual dividend or subpart F inclusion income from the foreign corporation. The denominator generally is the foreign corporation's post-1986 undistributed earnings. With respect to a distribution out of earnings and profits in the post-1986 pool, eligible foreign taxes include the sum of the foreign corporation's current year foreign taxes and its foreign taxes with respect to prior taxable years beginning after December 31, 1986 (sec. 902(c)(2)). The amount of foreign tax eligible for the indirect credit is added to the actual dividend or inclusion (the dividend or inclusion is said to be "grossed-up") and included in the U.S. corporate shareholder's income to treat the shareholder as if it had received its proportionate share of pre-tax profits and paid its proportionate share of foreign tax (sec. 78)). Under this formula for computing the indirect credit, for any given dividend amount in the numerator of the fraction, a greater amount of profits in the denominator of the fraction produces a smaller amount of foreign taxes allowed as a credit.

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[37] Unlike the deemed-paid credit for actual dividend distributions, the deemed-paid credit for subpart F inclusions can be available to individual shareholders in certain circumstances if an election is made (sec. 962)).

[38] Special rules are provided for purposes of computing the deemed-paid foreign tax credit in the case of a U.S. corporation receiving an excess distribution from an interest-charge passive foreign investment company (see sec. 1291(g)).

For purposes of computing the deemed-paid foreign tax credit, dividends or subpart F inclusions are considered made first from the post-1986 pool of all the distributing corporation's accumulated and earnings and profits.[39] Accumulated earnings and profits for this purpose include the earnings and profits of the current year undiminished by the current distribution or subpart F inclusion (sec. 902(c)(1)). Pooling applies only to earnings and profits derived in taxable years beginning after December 31, 1986. Dividends in excess of the accumulated pool of post-1986 undistributed earnings and profits are treated as paid out of pre-1987 accumulated profits under the ordering principles of pre-1986 Act law (sec. 902(c)(6)).[40] In the case of a foreign corporation that does not have a 10-percent (direct or indirect) U.S. shareholder who qualifies for the deemed-paid credit, pooling begins with the first day of the first taxable year in which there is such a 10-percent shareholder (sec. 902(c)(3)).

The Secretary of the Treasury is authorized to provide such regulations as may be necessary or appropriate to carry out the deemed-paid credit and subpart F deemed-paid credit provisions, including rules which provide for the separate application of those provisions to reflect the separate application of the foreign tax credit limitation to separate types of income and loss (sec. 902(c)(7)). To implement the intent that the deemed-paid credit limitation rules apply separately to categories of income subject to separate limitations, separate pools of earnings and profits and of foreign taxes must be maintained for the types of income subject to separate limitations.

For purposes of the foreign tax credit carryback and carryover provisions (discussed below under *"Carrybacks and carryovers of unused foreign tax credits"*), foreign taxes eligible for the deemed-paid credit are considered paid in the year the U.S. corporation includes the related dividend in income, regardless of when the taxes were paid by the foreign subsidiary.

3. Foreign tax credit limitation

A premise of the foreign tax credit is that it should not reduce a taxpayer's U.S. tax on its U.S. source income; rather, it should only reduce U.S. tax on its foreign source income. Permitting the foreign tax credit to reduce U.S. tax on U.S. income would in effect cede to foreign countries the primary right to tax income earned from domestic sources.

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[39] Earnings and profits computations for these purposes are to be made under U.S. concepts. *Goodyear Tire & Rubber Company & Affiliates v. United States*, 493 U.S. 132 (1989).

[40] In the case of an actual dividend distribution, the share of foreign tax paid by the foreign corporation that was eligible for the indirect credit was based under pre-1986 Act law on the share of that corporation's accumulated profits attributable to a particular taxable year that was repatriated as a dividend to the U.S. corporate shareholder. Foreign taxes paid for a particular year were eligible for the deemed-paid credit only to the extent that there were accumulated profits for that year and then only in proportion to the share of such accumulated profits that was attributed to the dividend distribution. Distributions were considered made first out of the most recently accumulated profits of the distributing corporation.

Overall and per country limitations

Since 1921, a limitation has been imposed on the amount of foreign tax credits that can be claimed in a year. This limitation prevents a taxpayer from using foreign tax credits to offset U.S. tax on U.S. source income. Historically, the foreign tax credit limitation has been determined on the basis of total foreign income (an "overall" limitation or method), foreign income earned in a particular country (a "per country" limitation or method), or both.

An overall limitation generally is calculated by prorating a taxpayer's pre-credit U.S. tax on its worldwide taxable income between its U.S. source and foreign source taxable income. The ratio of the taxpayer's foreign source taxable income to its worldwide taxable income is multiplied by the taxpayer's total pre-credit U.S. tax to establish the amount of U.S. tax allocable to the taxpayer's foreign source income and, thus, the upper limit on the foreign tax credit for the year. An overall method permits "averaging" for limitation purposes of the income and losses generated in, and the taxes paid to, the various foreign countries in which a taxpayer operates and other income and losses sourced outside the United States. An overall method also permits averaging of tax rates applied to different types of income.

Under a per country method, the taxpayer calculates the foreign tax credit limitation separately for each country in which it earns income. The foreign source income taken into account in each calculation is the foreign source income derived from the foreign country for which the limitation is being determined. Thus, a per country limitation prevents the use of taxes imposed by one country to reduce U.S. tax on income arising elsewhere. Otherwise, a per country limitation is calculated in basically the same manner as an overall limitation.

From 1921 until 1932, an overall limitation was in effect. Between 1932 and 1954, foreign tax credits were limited to the lesser of the overall or per country limitation amount. In 1954, Congress amended the law to allow only a per country limitation. From 1960 to 1975, Congress permitted taxpayers to elect between an overall and a per country method. Since 1976, an overall limitation has been mandatory.

The per country limitation rules of prior law permitted a taxpayer first to use the entire amount of a net loss incurred in any foreign country to reduce its U.S. taxable income. The taxpayer received a second tax benefit when in a later year, it earned income in the loss country and that country imposed tax on the income at a rate higher than the U.S. rate and had no net operating loss carryforward provision. A full foreign tax credit was allowed for that tax, eliminating the U.S. tax on the income, even though the earlier loss had reduced U.S. taxable income and, thus, U.S. tax, also. Congress repealed the per country limitation and enacted the overall foreign loss recapture rule (discussed below under "*Overall foreign losses*") in 1976 to eliminate this double tax benefit.

Separate limitation categories in general

Under present law, the foreign tax credit is subject to an overall limitation. That is, the total amount of the credit may not exceed the same proportion of the taxpayer's U.S. tax which the taxpayer's foreign source taxable income bears to the taxpayer's worldwide taxable income for the taxable year (sec. 904(a)). In addition, the foreign tax credit limitation is calculated separately for various categories of income generally referred to as "separate limitation categories." That is, the total amount of the credit for foreign taxes *on income in each category* may not exceed the same proportion of the taxpayer's U.S. tax which the taxpayer's foreign source taxable income *in that category* bears to the taxpayer's worldwide taxable income for the taxable year. In order to compute the foreign tax credit limitations, then, a taxpayer must determine the portion of its taxable income that falls into each applicable category, and determine the portion of its foreign taxes related to the income in each category.[41]

The separate limitation categories include passive income, high-withholding-tax interest, financial services income, shipping income, dividends received by a corporation from each noncontrolled section 902 corporation, dividends from a domestic international sales corporation (DISC) or former DISC, certain distributions from a foreign sales corporation (FSC), and taxable income of a FSC attributable to foreign trade income (sec. 904(d)). Income not in a separate limitation category is referred to in the regulations as "general limitation income." Also, a special limitation applies to the credit for taxes imposed on foreign oil and gas extraction income (sec. 907(a)). Under the look-through rules discussed below, subpart F inclusions with respect to the controlled foreign corporation, and dividends, interest, rents, and royalties received from it by its U.S. shareholders are subject to separate limitations to the extent attributable to the foreign corporation's income subject to the separate limitations.

A separate limitation generally is applied to a category of income for one of three reasons: the income's source (foreign or U.S.) can be manipulated; the income typically bears little or no foreign tax; or the income often bears a rate of foreign tax that is abnormally high or in excess of rates on other types of income. Applying a separate limitation to a category of income prevents the use of foreign taxes imposed on one category of income to reduce the U.S. tax on other categories of income. For example, the separate limitation for passive income generally prevents taxes imposed by a high-tax country (e.g., Germany) on manufacturing income from offsetting U.S. tax on interest earned on a bank deposit placed in a country that does not tax the interest in the hands of the U.S. taxpayer (or its subsidiaries).

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[41] Treas. Reg. sec. 1.904-6(a)(i). Taxes are related to income if the income is included in the base upon which the tax is imposed. A withholding tax generally is related to the income from which it is withheld.

If a tax is related to more than one separate category (because it is imposed on income in more than one category), then the tax is apportioned on an annual basis among the relevant categories according to a formula provided in regulations (Treas. Reg. sec. 1.904-6(a)(ii)). That formula is the foreign tax subject to apportionment multiplied by the ratio of net income subject to that tax that is included in a separate category to the total net income subject to that tax.

Separate limitation for passive income

General definition of passive income

Subject to "look-through" exceptions described below, the types of income treated as passive income generally receive that separate treatment whether received by a controlled foreign corporation or a U.S. person directly. Passive income generally is any income of a kind which would be subpart F foreign personal holding company income (as defined in Code sec. 954(c) and discussed in B.2., above) if the taxpayer were a controlled foreign corporation, subject to certain exceptions described below (sec. 904(d)(2)(A)). Thus, passive income for separate limitation purposes generally includes dividends, interest, annuities, rents, and royalties.

Foreign personal holding company and PFIC inclusions

Foreign personal holding company inclusions (under sec. 551) and passive foreign investment company inclusions (under sec. 1293) generally are passive income (sec. 904(d)(2)(A)(ii)).[42]

Exception for income described in another separate limitation category

Income that would otherwise meet the definition of both passive income and income in any of the other separate limitation categories is treated as income in the other separate limitation category and not as passive income (sec. 904(d)(2)(A)(iii)(I)). For example, interest income that meets both the definition of passive income and the definition of financial services income will be classified as financial services income.

Export financing exception

An export financing exception is provided to the separate limitation for passive income (sec. 904(d)(2)(A)(iii)(II)). In general, interest derived from financing the sale (or other disposition) for use or consumption outside the United States of any property which is manufactured, produced, grown, or extracted in the United States by the interest recipient or a related person, and not more than 50 percent of the fair market value of which is attributable to products imported into the United States, is excluded from the separate limitation for passive income (and is treated as general limitation income) (sec. 904(d)(2)(G)).[43] Export financing exceptions are also provided with respect to the separate limitations for financial services income and high withholding tax interest and the termination of tax deferral for banking income of controlled foreign corporations. Thus, an enterprise that finances its own exports will be able to soak up U.S. tax liability on the interest from the financing income with excess foreign tax credits from foreign manufacturing activities.

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[42] The look-through rules (discussed below) apply to section 1293 inclusions from controlled foreign corporations. Also, if a domestic corporation has an inclusion under section 1293 from a foreign corporation other than a controlled foreign corporation with respect to which it may claim an indirect credit under Code section 960, then the inclusion is classified as a dividend from a noncontrolled section 902 corporation.

[43] For this purpose, the fair market value of any property imported into the United States is its appraised value, as determined by the Secretary of the Treasury under section 402 of the Tariff Act of 1930 (19 U.S.C. 1401a) in connection with its importation.

As discussed below, the foreign tax credit limitation character of interest received from a controlled foreign corporation by a U.S. shareholder of the corporation is determined under look-through rules that take into account the foreign tax credit limitation character of the controlled foreign corporation's income. Whether interest received from a controlled foreign corporation by a U.S. shareholder of the corporation is general limitation income rather than separate limitation income depends upon the application of the look-through rules to that interest, not upon the direct application of the export financing exception to that interest.

For purposes of the export financing exception, interest income that satisfies both the definition of export financing interest and related person factoring income is treated as related person factoring income (and thus passive income for section 904 purposes), not as export financing interest (sec. 864(d)(5)(A)(i)). The availability of the export financing exception for interest received directly by U.S. persons (rather than by controlled foreign corporations) is not restricted by the related party factoring rule (sec. 904(d)(2)(A)(iv)). Thus, for example, interest received by a U.S. finance company on loans made to foreign purchasers of inventory manufactured in the United States by and purchased from the finance company's manufacturing affiliate generally will qualify for the export financing exception.

Foreign oil and gas extraction income exception

The separate limitation for passive income does not apply to foreign oil and gas extraction income (FOGEI) (sec. 904(d)(2)(A)(iii)(IV)). Under regulations, the definition of FOGEI currently includes interest on bank deposits or on any other temporary investment which is not in excess of funds reasonably necessary to meet the working capital requirements and the specifically anticipated business needs of a taxpayer engaged in extraction activities (Treas. Reg. sec. 1.907(c)-1T(f)(3)).

The high-tax kick-out

Passive income earned abroad sometimes bears relatively high, rather than low, effective rates of foreign tax. For example, portfolio dividends (which generally are included in foreign personal holding company income) are sometimes subject to high gross-basis withholding taxes. To ensure that the separate limitation for passive income segregates low-taxed income from high-taxed income as intended and that substantial averaging within the passive basket is avoided, a mechanical rule excludes high-taxed income from the passive basket (the "high-tax kick-out") (sec. 904(d)(2)(A)(iii)(III)).[44]

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[44] Among other things, Congress enacted the high tax kick-out with a view to precluding planning opportunities by which excess general basket taxes might effectively have been shifted into the passive basket. *See* Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, at 879-80. Assume, for example, that a U.S. company operates a foreign subsidiary in a high tax country. The subsidiary has $10,000 of assets and earns $1,000 of manufacturing income. Five hundred dollars of foreign tax is imposed on that income. The subsidiary repatriates all the income currently, free of any additional foreign withholding tax. The repatriated income is subject to the overall limitation. The U.S. company also receives $300 of passive

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For this purpose, high-taxed income is any income which would otherwise be passive income if the effective rate of foreign tax on the income exceeds the highest rate of U.S. corporate or individual tax (whichever applies) (sec. 904(d)(2)(F)). The effective rate of foreign tax is computed by dividing the amount of the foreign income taxes paid or accrued (or deemed paid) by the taxpayer with respect to the income by the amount of the income (grossed-up for any deemed-paid foreign taxes pursuant to section 78). Income, for this purpose, is reduced by allocable expenses. The high-tax kick-out is applied on an annual basis.

The high-tax kick-out is similar in certain respects to the subpart F high-tax exception (discussed above), which generally excludes from foreign base company income and insurance income that income subject to an effective rate of foreign income tax greater than 90 percent of the maximum U.S. corporate tax rate. However, the separate limitation high-tax kick-out, unlike the subpart F provision, is self-executing.[45]

The regulations provide special grouping rules for purposes of computing the high-tax kick-out on various types of passive income (Treas. Reg. sec. 1.904-4(c)(2)-(5)). Under these rules, amounts received or accrued by U.S. persons generally are grouped together and treated as one item of income as follows: (1) All passive income that is subject to a withholding tax of 15 percent or greater, (2) all passive income that is subject to a withholding tax of less than 15 percent (but greater than zero), and (3) all passive income that is subject to no withholding tax. In the case of income received by a U.S. shareholder from *each* controlled foreign corporation as subpart F inclusions and income of *each* foreign branch of a U.S. person (collectively referred to as QBUs for this purpose), amounts

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income from investments in a tax haven country. The $300 bears no foreign tax and is subject to the separate limitation for passive income.

The company's U.S. tax liability on its foreign income is $102 (34 percent of $300): the tax is attributable entirely to the company's separate limitation passive income; the deemed-paid foreign tax credit for the $500 of tax imposed on the company's $1,000 of repatriated manufacturing income eliminates any U.S. tax liability with respect to that income. Because the $500 deemed-paid credit exceeds the $340 of U.S. tax on the manufacturing income, the company has excess foreign tax credits in the overall limitation basket.

Absent the high-tax kick-out, however, it was feared that the company might take the position that it can use some of its excess credits to reduce its U.S. tax liability on its passive income by entering into the following pair of transactions: the company's high tax country subsidiary borrows $8,000 at 10-percent interest and purchases an $8,000 certificate of deposit paying 10-percent interest. These transactions "wash": the company continues to earn $1,000 of manufacturing income in its high tax country subsidiary and $300 of passive investment income in the tax haven. The foreign tax on the company's $1,000 of high tax country income remains $500. However, absent anti-abuse rules, the company might argue, based on calculations described below, that allocation of its subsidiary's $800 of interest expense results in the company's having $556 of high-tax country active income, bearing $278 of foreign tax, and $444 of high tax country passive income, bearing $222 of foreign tax. This result could obtain were the asset method used to allocate the subsidiary's interest expense between its $1,000 of manufacturing income and $800 of passive interest. Under the asset method, $444 of its interest expense ($10,000/$18,000 x $800) would be allocated to its $1,000 of manufacturing income resulting in net manufacturing income of $556, while $356 ($8,000/$18,000 x $800) would be allocated to the subsidiary's $800 of interest income resulting in net passive income at the subsidiary level of $444. If $444 of the subsidiary's $1,000 of earnings were in fact treated as high-tax country passive income bearing $222 of the foreign tax, then the company's U.S. tax liability would be reduced to $30.96: precredit tax of $252.96 on the company's $744 ($300 + $444) of passive income, less a $222 deemed-paid credit for the foreign tax allocated to the passive interest. (The $556 still characterized as active income would continue to be free of U.S. tax because of the deemed-paid credit assigned to it.)

[45] The subpart F high-tax exception, by contrast, applies only if a taxpayer establishes to the Secretary's satisfaction that its requirements are satisfied, and a taxpayer may elect not to so establish.

generally are grouped together and treated as one item of income as follows: (1) Passive income from sources within the QBU's country of operation, and (2) passive income from sources without the QBU's country of operation (subject to the grouping rules on the basis of the rate of withholding tax imposed as set forth in the preceding sentence).[46]

The regulations provide special rules for grouping certain types of income. For example, all items of rent and royalty income to which an item of rent or royalty expense is directly allocable is treated as a single item of income and not grouped with other amounts. As another example, a partner's distributive share of partnership income that is not subject to look-through rules and that is treated as passive income is grouped together as one item. A distributive share of partnership income that is treated as passive under look-through rules is grouped according to the rules for grouping subpart F income inclusions discussed above (Treas. Reg. sec. 1.904-4(c)(5)).

Separate limitation for high withholding tax interest

A separate foreign tax credit limitation applies to high withholding tax interest. High withholding tax interest generally is any interest subject to a foreign withholding tax (or other tax determined on a gross basis) of 5 percent or more (sec. 904(d)(2)(B)).[47]

The separate limitation for high withholding tax interest generally does not apply to export financing interest. Interest excluded from the separate limitation for high withholding tax interest under the export financing exception is treated as general limitation income unless the interest is received by an entity predominantly engaged in the active conduct of a banking, insurance, financing, or similar business. In the latter case, such interest is treated as financial services income (sec. 904(d)(2)(C)(i)(III)).

As discussed below under the look-through rules, the separate limitation for high withholding tax interest applies if a controlled foreign corporation makes a high withholding tax loan; the separate limitation's applicability is not limited to high withholding tax loans by U.S. persons. Without such look-through treatment, U.S. persons might avoid the separate limitation by originating high withholding tax loans in, or moving such loans to, controlled foreign corporations.

A similar potential for avoidance might exist with respect to noncontrolled section 902 corporations. High withholding taxes imposed on interest income earned by a noncontrolled section 902 corporation are eligible for the deemed-paid credit. Under a special rule, taxes on high withholding tax interest, to the extent imposed at a rate exceeding 5 percent, are not treated as foreign taxes for purposes of determining the amount of foreign taxes deemed paid by a taxpayer with respect to dividends received from a noncontrolled section 902 corporation (sec. 904(d)(2)(E)(ii)).

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[46] For this purpose, source of income is determined under the laws of the foreign country of the payor of the income (Treas. Reg. sec. 1.904-4(c)(4)(iii)).

[47] Under regulations, a withholding tax is not considered to be determined on a gross basis if the tax is not the final tax payable on the interest income, but is merely a prepayment or credit against a final tax liability determined on a net basis on the interest alone or on interest and other income (Treas. Reg. sec. 1.904-4(d)).

Separate limitation for financial services income

General definition of financial services income

The separate foreign tax credit limitation for financial services income applies only to income received or accrued by any person that is predominantly engaged in the active conduct of a banking, insurance, financing, or similar business. In such a case, financial services income includes income that (1) would also meet the definition of passive income (described above), (2) is export financing interest that is subject to a foreign withholding tax (or other gross-basis tax) of at least 5 percent, (3) is derived in the active conduct of a banking, financing, or similar business, (4) is derived from the investment by an insurance company of its unearned premiums or reserves ordinary and necessary for the proper conduct of its insurance business, or (5) is or would be "insurance income" under subpart F but for the subpart F exception to "insurance income" for income from same-country insurance (sec. 904(d)(2)(C)).

The limitation for financial services income is so named to emphasize the broad range of income types to which the separate limitation applies. The regulations refer to an entity that is predominantly engaged in the active conduct of a banking, insurance, financing, or similar business as a "financial services entity" (Treas. Reg. sec. 1.904-4(e)(3)). Generally, an entity qualifies as a financial services entity for a taxable year if at least 80 percent of its gross income is active financing income. The regulations enumerate an expansive list of items which qualify as active financing income.[48] In practice, the separate limitation category of financial services income can thus serve the same function for a financial services entity that the general limitation income category serves for a non-financial services entity.

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[48] The list includes (1) income from providing services as an insurance underwriter, broker, or agent, (2) income from loss adjuster and surveyor services, (3) income from investing funds in circumstances in which the taxpayer holds itself out as providing a financial service by the acceptance or the investment of such funds, including income from investing deposits of money and income earned investing funds received for the purchase of traveller's checks or face amount certificates, (4) income from making personal, mortgage, industrial, or other loans, (5) income from purchasing, selling, discounting, or negotiating on a regular basis, notes, drafts, checks, bills of exchange, acceptances, or other evidences of indebtedness, (6) income from issuing letters of credit and negotiating drafts drawn thereunder, (7) income from providing trust services, (8) income from arranging or engaging in foreign exchange transactions, (9) income from purchasing stock, debt obligations, or other securities from an issuer or holder with a view to the public distribution thereof or offering or selling stock, debt obligations, or other securities for an issuer or holder in connection with the public distribution thereof, or participating in any such undertaking, (10) income earned by broker-dealers in the ordinary course of business (such as commissions) from the purchase or sale of stock, debt obligations, commodities futures, or other securities or financial instruments and dividend and interest income earned by brokers-dealers on stock, debt obligations, or other financial instruments that are held for sale, (11) service fee income from investment and correspondent banking, (12) income from interest rate and currency swaps, (13) income from providing fiduciary services, (14) income from services with respect to the management of funds, (15) bank-to-bank participation income, (16) income from providing charge and credit card services of for factoring receivables obtained in the course of providing such services, (17) income from financing purchases from third parties, (18) income from gains on the disposition of tangible or intangible personal property or real property that was used in an active financing business, but only to the extent that the property was held to generate or generated active financing income prior to its disposition, (19) income from hedging gain with respect to other active financing income, (20) income from providing traveller's check services, (21) income from servicing mortgages, (22) income from finance leasing that would not qualify as active leasing income under subpart F, (23) high withholding tax interest that would otherwise be described as active financing income, and (24) income from providing investment advisory services, custodial services, agency paying services, collection agency services, and stock transfer agency services (Treas. Reg. sec. 1.904-4(e)(2)).

In no event is income attributable to nonfinancial activity treated as financial services income. Thus, for example, income from data processing services or nonfinancial services or the sale of goods is not financial services income, even if the recipient satisfies the predominantly engaged test.

Export financing exception

An export financing exception is provided to the separate limitation for financial services income (sec. 904(d)(2)(C)(iii)(III)). This exception is similar to the export financing exception to the separate limitation for passive income (described above), except that this exception applies only if the export financing interest is not subject to a foreign withholding tax of 5 percent or greater.

Other priority rules

High withholding tax interest subject to its own separate limitation (see above) is not subject to the separate limitation for financial services income (sec. 904(d)(2)(C)(iii)(I)). Also, a dividend that would be both financial services income and a dividend from a noncontrolled section 902 corporation is treated as the latter (sec. 904(d)(2)(C)(iii)(II)).

Separate limitation for shipping income

The separate limitation for shipping income applies to income received or accrued by any person which is of a kind which would be subpart F foreign base company shipping income (discussed in II.B.2. above) (sec. 904(d)(2)(D)).[49] Shipping income does not include any dividend from a noncontrolled section 902 corporation or any income that would also qualify as financial services income.

Separate limitation for dividends from noncontrolled section 902 corporations

In general, when a foreign corporation that is not a controlled foreign corporation pays dividends that are eligible for the deemed-paid foreign tax credit (discussed above), a separate foreign tax credit limitation applies to the dividends received (sec. 904(d)(2)(E)(i)).[50] Under this separate limitation for dividends from "noncontrolled section 902 corporations," foreign taxes associated with dividend income may offset U.S. tax only on dividend income from that corporation. The taxes affected by this separate limitation are foreign withholding taxes imposed on these dividends and foreign taxes deemed paid with respect to these dividends.

Except as may be provided by regulations, the separate limitation for each noncontrolled section 902 corporation also applies to dividends eligible for the deemed-paid credit that are paid by a controlled foreign corporation out of earnings and profits generated either while the payor was not a controlled foreign corporation or while the payor was a controlled foreign corporation but the recipient was not a U.S. shareholder of that corporation (sec. 904(d)(2)(E)(i)).

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[49] This separate limitation applies to income received directly by U.S. persons as well as to income received by controlled foreign corporations.

[50] The limitation also applies to inclusions from a passive foreign investment company under section 1293 if that company is a noncontrolled section 902 corporation with respect to the recipient (sec. 904(d)(2)(E)(iii)).

The separate limitation for dividends from noncontrolled section 902 corporations takes priority over the other separate limitations. If, for example, a 30-percent U.S.-owned foreign banking company pays a dividend to its sole U.S. owner, also a banking company, then the dividend is subject to the separate limitation for dividends from noncontrolled section 902 corporations, not to the separate limitation for financial services income.

An example illustrates the operation of the separate limitation for dividends from noncontrolled section 902 corporations. A U.S. corporation owns 40 percent of a foreign corporation that is neither a passive foreign investment company nor a controlled foreign corporation. The foreign corporation pays a dividend of $80 to the U.S. corporation. A $16 withholding tax is imposed on that dividend, so the U.S. corporation receives a net payment of $64. A $40 deemed-paid credit is associated with the dividend. The U.S. corporation includes $120 in income ($80 grossed up by the $40 deemed-paid foreign tax). That $120 carries with it foreign tax credits of $56. Those foreign tax credits exceed the $40.80 of pre-credit U.S. tax on the $120. The limitation provides that the $15.20 of excess credits cannot offset U.S. tax on income other than prior or later dividends from this foreign corporation.

If a noncontrolled section 902 corporation earns income that would qualify as high withholding tax interest (discussed above), taxes on that interest (to the extent imposed at a rate in excess of 5 percent) are not treated as foreign taxes for purposes of determining the amount of foreign taxes deemed paid by a U.S. corporate shareholder (sec. 904(d)(2)(E)(ii)).

The separate limitation for dividends from noncontrolled section 902 corporations does not limit the application of the special foreign tax credit rules for foreign oil and gas income (sec. 907). For example, the look-through rules for inclusions with respect to foreign corporations with foreign oil and gas income (sec. 907(c)(3)) discussed below have full effect, and operate in addition to the separate limitation for dividends paid by noncontrolled section 902 corporations.

Other separate limitation categories

In addition to the separate limitation categories discussed above, taxpayers are required to compute the foreign tax credit limitation separately for each of the following types of income: dividends from a DISC or former DISC to the extent such dividends are treated as foreign source income;[51] the taxable income attributable to foreign trade income of a FSC; and distributions from a FSC or former FSC out of earnings and profits attributable to foreign trade income or interest or carrying charges derived from a transaction that gives rise to foreign trade income (sec. 904(d)(1)((F) through (H)).[52]

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[51] Dividends from a DISC or former DISC generally are treated as foreign source income to the extent they are attributable to qualified export receipts of the DISC (sec. 861(a)(2)(D)).

[52] In general, foreign trade income of a FSC is gross income attributable to (1) the sale, exchange, or other disposition of export property, (2) the lease or rental of export property for use by the lessee outside the United States, (3) services which are related and subsidiary to any sale,

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Look-through rules

In general

Dividends, interest, rents, royalties, and subpart F income inclusions received from controlled foreign corporations by their U.S. shareholders generally are subject to the general limitation or to the various separate limitations (as the case may be) in accordance with look-through rules that take into account the extent to which the income of the payor is itself subject to one or more of these limitations (sec. 904(d)(3)(A)).[53] A dividend received from a controlled foreign corporation by a U.S. shareholder of that corporation, for example, is not automatically treated as 100-percent passive income even though it is income of a kind which would be subpart F foreign personal holding company income if earned by another foreign corporation.

Subpart F inclusions

Inclusions under section 951(a)(1)(A) with respect to income of a controlled foreign corporation generally are treated as income subject to the general limitation or as income subject to each separate limitation category to the extent the amount so included is attributable to income of the controlled foreign corporation subject to each of these limitations (sec. 904(d)(3)(B)).[54]

The general look-through rule for subpart F inclusions may be illustrated as follows: Assume that a controlled foreign corporation wholly owned by a U.S. corporation earns $200 of net income. Ninety-five dollars of the income is foreign base company shipping income and $5 is interest from unrelated parties that is foreign personal holding company income for subpart F purposes. The remaining $100 is non-subpart F general limitation income. No foreign tax is imposed on the income. The shipping and foreign personal holding company income is subpart F income taxed currently to the U.S. parent corporation. Since $95 of the $100 subpart F inclusion is attributable to income of the foreign corporation subject to the separate limitation for shipping income, $95 of the subpart F inclusion is treated as separate limitation shipping income of the parent corporation. Since $5 of the subpart F inclusion is attributable to income of the foreign corporation subject to the separate limitation for passive income, $5 of the subpart F inclusion is treated as separate limitation passive income of the parent corporation. Any future dividend from the controlled foreign corporation from its $100 of other earnings will consist solely of general limitation income.

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exchange, disposition, lease, or rental of export property, (4) engineering or architectural services for foreign construction projects, or (5) in certain cases, the performance of managerial services for an unrelated FSC or DISC in furtherance of the production of gross income listed in (1), (2), or (3) (secs. 923(b) and 924).

[53] The look-through rules do not apply with respect to income that would fall in one of the following separate limitation categories: Dividends from a DISC or former DISC, taxable income attributable a FSC's foreign trade income, and FSC distributions (sec. 904(d)(3)(F)(i)).

[54] Inclusions of this type generally consist of the sum of the taxpayer's pro rata share of subpart F income (e.g., subpart F insurance income and foreign base company income) and amounts of previously excluded subpart F income withdrawn from investments in less developed countries or in shipping operations (sec. 951(a)(1)(A)). Any amounts included in gross income under section 78 to the extent attributable to these types of subpart F inclusions are treated as subpart F inclusions for this purpose, not as dividends (sec. 904(d)(3)(G)).

Subpart F inclusions triggered by an increase in earnings of a controlled foreign corporation that are invested in U.S. property ("section 956 inclusions") are subject to the look-through rule applicable to dividends discussed below (sec. 904(d)(3)(G)). Section 956 inclusions are subject to the look-through rule for dividends rather than for subpart F inclusions generally because section 956 inclusions, like dividends, are drawn pro rata from earnings and profits; they differ from foreign base company income inclusions in that they are not specifically identified with particular earnings of a controlled foreign corporation.

Interest, rents, and royalty payments in general

Interest, rents, and royalties received or accrued from a controlled foreign corporation in which the payee is a U.S. shareholder generally are treated as income subject to the general limitation or as income subject to each separate limitation category to the extent properly allocable to income of the controlled foreign corporation subject to each of these limitations (sec. 904(d)(3)(C)). Under this rule, for example, royalties paid to a parent corporation by a foreign subsidiary that itself earns only general limitation income are treated as general limitation income. Similarly, interest paid to a parent financial institution by a subsidiary that itself earns only high withholding tax interest is treated as high withholding tax interest.

Direct allocation of interest payments

Interest payments or accruals by a controlled foreign corporation to a U.S. shareholder with respect to the corporation (or to another controlled foreign corporation related to such a U.S. shareholder) are allocated first to gross subpart F foreign personal holding company income of the corporation that is passive, to the extent of such income (Treas. Reg. sec. 1.904-5(c)(2)(ii)(C)).[55] Interest paid by a controlled foreign corporation to a U.S. shareholder is treated as first attributable to passive income under the theory that it generally would be as easy for the ultimate passive income recipient to have received the passive income directly as to have channeled it through a related corporation. In addition, this treatment of passive income prevents avoidance of tax through the use of back to back loans.

Dividends

A portion of any dividend received from a controlled foreign corporation in which the recipient is a U.S. shareholder is treated as general limitation income or as income of each separate limitation category on the basis of a separate limitation income ratio (sec. 904(d)(3)(D)). For each of these foreign tax credit limitation categories, the separate limitation income ratio of a dividend equals the separate limitation earnings and profits out of which the dividend was paid divided by the total earnings and profits out of which the dividend was paid. Dividends are considered to be paid first from the post-1986 multi-year pool of the distributing corporation's accumulated profits (in the case of actual distributions) rather than, as under pre-1986 Act law, from the most recently accumulated profits of the distributing corporation.

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[55] The general subpart F related person definition (discussed in II.B.2. above) applies to determine whether a controlled foreign corporation is related to a U.S. shareholder for purposes of the direct allocation provision.

De minimis exception and 70-percent full inclusion rule

If a controlled foreign corporation has no foreign base company income or subpart F insurance income in a taxable year because the corporation satisfies the subpart F de minimis rule (discussed in II.B.2. above) for that year, then the look-through rules generally treat interest, rents, or royalties paid by the corporation during that year and dividends, to the extent treated as paid from that year's earnings and profits, as general limitation income (sec. 904(d)(3)(E)). This rule, however, does not apply to income that is financial services income.

The 70-percent full inclusion rule for foreign base company and insurance income (discussed in II. B. 2. above) does not result in general limitation income of a controlled foreign corporation being treated as separate limitation income (Treas. Reg. sec. 1.904-5(e)(1)). Thus, for example, U.S. shareholders of a controlled foreign corporation who are taxed currently on all of the corporation's income because the corporation's foreign personal holding company income exceeds 70 percent of its income are required to treat as separate limitation passive income only that portion of the income that is foreign personal holding company income without regard to the 70-percent full inclusion rule.

Exception for income of controlled foreign corporations subject to high foreign tax

For purposes of applying the dividend look-through rule, income of a controlled foreign corporation that would otherwise be passive income is treated as general limitation income if it is established by the taxpayer that the income was subject to an effective foreign tax rate of greater than 90 percent of the maximum U.S. tax rate and the income is excluded from subpart F as a result of the subpart F high-tax exception (sec. 904(d)(3)(E)). This provision helps harmonize the operation of the subpart F and separate limitation look-through rules.

The subpart F high-tax exception is not coordinated with the application of the separate limitations other than the separate limitation for passive income. Thus, for example, high withholding tax interest that is excluded from subpart F foreign personal holding company income as high-taxed income does not cease to be treated as high withholding tax interest.

Special rules relating to look-through

Look-through rules similar to the rules applicable to subpart F inclusions apply to inclusions from passive foreign investment companies under section 1293 (sec. 904(d)(3)(I)). That is, any amount included under section 1293 is treated as income in a separate category to the extent such amount is attributable to income in such category.

For purposes of applying the look-through rules, a U.S. corporation's income "gross-up" for deemed-paid foreign taxes (sec. 78) is treated as increasing the corporation's subpart F inclusion to the extent that the gross-up is attributable to such a subpart F inclusion. To the extent that the gross-up is attributable to a dividend or a section 956 inclusion, the gross-up is treated as a dividend for look-through purposes (sec. 904(d)(3)(G)). Under this approach, for example, a single $100 inclusion consisting of $80 of subpart F foreign personal holding company income and a $20 gross-up for the foreign taxes deemed paid on the $80 is subject to one look-through rule (that for subpart F inclusions under Code section 951(a)(1)(A)) rather than two (the subpart F and dividend look-through rules).

4. Losses, carrybacks, and carryovers

Separate limitation losses

For foreign tax credit limitation purposes, losses for any taxable year in separate foreign tax credit limitation categories and in the general limitation category offset U.S. source income only to the extent that the aggregate amount of such losses exceeds the aggregate amount of foreign income earned in other categories (i.e., only to the extent that there is an overall foreign loss) (sec. 904(f)(5)(A)). Separate limitation losses (to the extent that they do not exceed total foreign income for the year) are allocated on a proportionate basis among (and operate to reduce) the separate limitation categories in which the entity earns income in the loss year (sec. 904(f)(5)(B)). Losses in all separate limitation categories are subject to this rule.

A separate limitation loss recharacterization rule applies to foreign losses allocated to foreign income pursuant to the above rule (sec. 904(f)(5)(C)). The recharacterization rule is similar to the overall foreign oil and gas extraction loss recapture rule discussed below. If a separate limitation loss or a general limitation loss was allocated to income subject to another separate limitation (or, in the case of a separate limitation loss, to general limitation income) and the loss basket has income for a subsequent taxable year, then that income (to the extent that it does not exceed the aggregate separate limitation losses in the loss basket not previously recharacterized under this provision) must be recharacterized as income of the same type that was previously offset by the loss in proportion to the prior loss allocation not previously taken into account under this provision.

To the extent that the prior loss allocation, by reducing (for limitation purposes) foreign income that was subject to high foreign taxes, gave rise to additional excess foreign tax credits, the subsequent treatment of additional income as if it were such high tax foreign income may increase the foreign tax credit limitation in the year or years when the recharacterization occurs. To the extent that the loss allocation, by reducing (for limitation purposes) income that bore little or no foreign tax, reduced post-foreign tax credit U.S. tax liability in the loss year, the subsequent treatment of additional income as income of the type that bore little foreign tax may result in a recovery of some or all of the previously foregone U.S. tax revenue in the year or years when the recharacterization occurs.

The following is an example of how the foreign loss allocation and separate limitation loss recharacterization provisions operate: Assume a U.S. corporation earns $200 of U.S. source income, $20 of foreign source income subject to the separate limitation for passive income, and $5 of foreign source income subject to the separate limitation for certain distributions from a FSC in a taxable year. The corporation also incurs a $10 foreign source general limitation loss in that taxable year. Under the separate limitation loss allocation rule, the $10 general limitation loss is allocated on a proportionate basis among the foreign source income baskets in which the corporation earns income in the loss year. Thus, $8 of that loss is allocated to its $20 of passive income and the remaining $2 of the loss is allocated to its $5 of income from FSC distributions. None of the loss is allocated to its $200 of U.S. source income. Thus, for foreign tax credit limitation purposes, the corporation has $12 of passive basket income, $3 of income in the FSC distribution basket, and $200 of U.S. source income for the taxable year.

In the following taxable year, the corporation earns $25 of foreign source passive basket income, $5 of foreign source income in the FSC distribution basket, and $50 of foreign source general limitation income. Because the corporation had a $10 foreign source general limitation loss in the previous year that was allocated to separate limitation income in that year, $10 of its current-year $50 of general limitation income is recharacterized under the separate limitation loss recharacterization rule as income of the type previously offset by that loss. That recharacterization is in proportion to the prior loss allocation. Thus, $8 of the general limitation income is recharacterized as passive basket income and $2 of the general limitation income is recharacterized as income in the FSC distribution basket. As a result, the corporation has $33 of passive basket income, $7 of income in the FSC distribution basket, and $40 of general limitation income in the second taxable year.

Where a loss is incurred in more than one separate limitation category in a particular year, each such loss is allocated proportionately to foreign income, and then, if necessary, to U.S. source income.

Foreign taxes on income recharacterized under the separate limitation loss recharacterization rule are not themselves to be recharacterized (sec. 904(f)(5)(C)). For example, foreign taxes on foreign source general limitation income that is recharacterized as separate limitation income in a year following a general limitation loss year may be credited only against U.S. tax on other general limitation income.

Overall foreign losses

If a taxpayer's losses from foreign sources exceed its foreign source income, the excess ("overall foreign loss") may reduce the taxpayer's U.S. source taxable income and, hence, its U.S. tax.[56] To eliminate a double benefit (that is, the reduction of U.S. tax just noted and, later, full allowance of a foreign tax credit with respect to foreign source income), an overall foreign loss recapture rule was enacted in 1976. Under this rule, a portion of foreign taxable income earned after an overall foreign loss year is treated as U.S. source taxable income for foreign tax credit purposes (and for purposes of the possessions tax credit) (sec. 904(f)(1)). Foreign source taxable income up to the amount of the overall foreign loss may be so treated. However, unless the taxpayer elects a higher percentage, no more than 50 percent of the foreign source taxable income earned in any particular year is resourced as U.S. source taxable income.[57] The effect of the recapture is to reduce the foreign tax credit limitation in one or more years following an overall foreign loss year and, therefore, the amount of U.S. tax that can be offset by foreign tax credits in the later year or years.

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[56] For purposes of computing a taxpayer's overall foreign loss, net operating loss deductions, foreign expropriation loss deductions, and losses arising from fire, storm, shipwreck, or other casualty, or from theft are not taken into consideration to the extent such losses are not compensated for by insurance or otherwise (sec. 904(f)(2)).

In cases where a taxpayer realizes an overall foreign loss, both the overall foreign loss recapture rule and the separate limitation loss recharacterization rule apply. For example, if a U.S. corporation has a foreign source loss in the general limitation basket of $100, $75 of separate limitation foreign source income, and $100 of U.S. source income, the $100 loss first offsets the $75 of separate limitation foreign source income and then offsets $25 of U.S. source income. If, in a subsequent year, the corporation has $100 of foreign source general limitation income, the prior year's $100 loss first is used to recharacterize $25 of that income as U.S. source income under the overall foreign loss recapture rule, and then is used to recharacterize the remaining $75 of that income as separate limitation income under the separate limitation loss recharacterization rule.

U.S. losses

An overall U.S. loss reduces a taxpayer's foreign source income, just as an overall foreign loss reduces a taxpayer's U.S. source income. The U.S. loss reduces the taxpayer's U.S. tax liability and thus the foreign tax credit limitation is correspondingly reduced.

If a taxpayer earns foreign source income in more than one foreign tax credit limitation category—for example, income subject to the general limitation and income subject to the passive limitation—any U.S. loss of the taxpayer incurred in the same year must be allocated between or among the different income baskets for foreign tax credit limitation purposes on a proportionate basis (sec. 904(f)(5)(D)). This rule applies after any separate limitation foreign losses have been allocated among the foreign tax credit limitation categories in which the taxpayer earns income. There is, however, no resourcing of U.S. income as foreign in any later year.

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[57] If a taxpayer with an overall foreign loss disposes of property that was used predominantly without the United States in a trade or business, the taxpayer generally is deemed to have received and recognized foreign source taxable income as a result of the disposition in an amount at least equal to the lesser of the gain actually realized on the disposition or the remaining amount of the unrecaptured overall foreign loss (sec. 904(f)(3)). Furthermore, the annual 50-percent limit on the resourcing of foreign source income does not apply to that amount of foreign source income realized by reason of the disposition.

Carrybacks and carryovers of unused foreign tax credits

The amount of creditable taxes paid or accrued (or deemed paid) in any taxable year which exceeds the foreign tax credit limitation is permitted to be carried back to the two immediately preceding taxable years and carried forward to the first five succeeding taxable years and credited (not deducted) to the extent that the taxpayer otherwise has excess foreign tax credit limitation for those years (sec. 904(c)). For purposes of determining excess foreign tax credit amounts, the foreign tax credit separate limitation rules apply. Thus, if a taxpayer has excess foreign tax credits in one separate limitation category for a taxable year, those excess credits are carried back or forward only as taxes allocable to that category notwithstanding the fact that the taxpayer may have excess foreign tax credit limitation in another category for that year.

5. Foreign oil and gas extraction and oil related income

In general

In addition to the general rules for determining the creditability of a foreign tax discussed above, special rules apply to income from oil and gas activities and to foreign income taxes paid or accrued (or deemed paid) with respect to foreign oil and gas extraction income and foreign oil related income.[58]

Certain payments for oil or gas

Notwithstanding the general rule that foreign income taxes are creditable, the amount of any such taxes paid to any foreign country in connection with the purchase and sale of oil or gas extracted in that country is not considered a creditable tax if the taxpayer does not have an economic interest in the oil or gas to which the rules of section 611(a) (allowance for depletion) apply, and either the purchase or sale is at a price which differs from the fair market value for such oil or gas (sec. 901(f)).

Taxes on foreign oil and gas extraction income

Under the special limitation applicable to taxes on foreign oil and gas extraction income, amounts claimed as taxes paid on foreign oil and gas extraction income of a U.S. company qualify as creditable taxes (if they otherwise so qualify) only to the extent they do not exceed 34 percent (the highest U.S. corporate tax rate) of such extraction income (sec. 907(a)). Foreign taxes paid in excess of that amount on such income are, in general, neither creditable nor deductible. However, such excess taxes may be carried back to the two immediately preceding taxable years and carried forward to the first five succeeding taxable years and credited (not deducted) as foreign oil and gas extraction taxes subject to the general limitation on such taxes imposed under section 907(a) for those years (sec. 907(f)).

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[58] When U.S. oil companies began operations in a number of major oil exporting countries, they paid only a royalty for the oil extracted since there generally was no applicable income tax in those countries. However, in part because of the benefits to the oil companies of imposing an income tax, as opposed to a royalty, those countries adopted taxes applicable to extraction income and labeled them income taxes. Moreover, because of this relative advantage to the oil companies of paying income taxes rather than royalties, many oil-producing nations in the post-World War II era tended to increase their revenues from oil extraction by increasing their taxes on U.S. oil companies. See Joint Committee on Taxation, *General Explanation of the Tax Equity and Fiscal Responsibility Act of 1982*, at 71 n.4.

For this purpose, foreign oil and gas extraction income generally is foreign source taxable income derived from the extraction by the taxpayer or any other person of minerals from oil or gas wells or from the sale or exchange of assets used by the taxpayer in such an extraction operation (sec. 907(c)(1)).

Taxes on foreign oil related income

The Treasury Secretary has regulatory authority to limit the credit for foreign taxes on foreign oil related income by a comparability rule (sec. 907(b)). Under this rule, a foreign tax on foreign oil related income would be noncreditable to the extent that the Secretary determines that the foreign law imposing the tax is structured, or in fact operates, so that the amount of tax imposed with respect to foreign oil related income generally will be materially greater, over a reasonable period of time, than the amount generally imposed on income that is neither foreign oil related income nor foreign oil and gas extraction income. The Secretary has not, however, exercised his authority under this rule to date.

The term "foreign oil related income" is defined as the foreign source taxable income from (1) the processing of minerals extracted by the taxpayer or any other person from oil or gas wells into their primary products, (2) the transportation of such minerals or primary products, (3) the distribution or sale of such minerals or primary products, (4) the disposition of assets used by the taxpayer in a trade or business described in (1), (2), or (3), or (5) the performance of any other related service (sec. 907(c)(2)).

Look-through rules

Dividends, interest, and subpart F income and passive foreign investment company income inclusions from a foreign corporation in respect of which foreign taxes are deemed paid by the taxpayer under the indirect credit rules, and the taxpayer's distributive share of the income of any partnership, generally are treated as foreign oil and gas extraction income or foreign oil related income to the extent that such amounts are attributable to those respective categories of income (sec. 907(c)(3)).

Overall foreign oil and gas extraction losses

Foreign oil and gas extraction losses are treated separately from other foreign losses. These losses first reduce other foreign oil and gas extraction income. If a taxpayer's foreign oil and gas extraction losses exceed its foreign oil and gas extraction income, the excess ("overall foreign oil and gas extraction loss") first reduces the taxpayer's other foreign source taxable income, then the taxpayer's U.S. source taxable income.[59] Overall foreign oil and gas extraction losses are subject to a separate loss recapture rule (sec. 907(c)(4)(A)) that operates in substantially the same manner as the general overall foreign loss recapture rule. Under the overall foreign oil and gas extraction loss recapture rule, a portion of foreign oil and gas extraction income earned after an overall oil and gas extraction loss year is treated as foreign source income other than foreign oil and gas extraction income for foreign tax credit purposes. If an overall foreign loss includes an overall foreign oil and gas extraction loss, both recapture rules will apply in a later year in which the taxpayer earns foreign oil and gas extraction income. The extraction income will first be recharacterized as U.S. source income under the foreign loss recapture rule. Any extraction income not so recharacterized will then be subject to the overall foreign oil and gas extraction loss recapture rule.

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[59] For purposes of computing a taxpayer's foreign oil and gas extraction loss, net operating loss deductions, foreign expropriation loss deductions, and losses arising from fire, storm, shipwreck, or other casualty, or from theft are not taken into consideration to the extent such losses are not compensated for by insurance or otherwise (sec. 907(c)(4)(B)).

6. Other special rules

Participation in international boycotts

If a taxpayer or a person related to the taxpayer participates in or cooperates with an international boycott during a taxable year, then the amount of the direct foreign tax credit allowable to the taxpayer or the indirect foreign tax credit allowable to U.S. shareholders of the taxpayer is reduced (sec. 908(a)).[60]

The amount of the foreign tax credit reduction is equal to the product of the amount of the otherwise allowable foreign tax credit multiplied by the international boycott factor.[61] In lieu of reducing the amount of credit by the international boycott factor, the reduction is only in the amount of the taxes specifically attributable to the boycott-related operations if the taxpayer can clearly demonstrate the amount of taxes that are so specifically attributable (sec. 999(c)(2)).

Taxes which are treated as not creditable under the international boycott provision may be deducted by the taxpayer and are not required to be grossed-up under section 78 (sec. 908(b)).

Deconsolidation to avoid foreign tax credit limitations

An affiliated group of corporations filing a consolidated return (hereinafter referred to as a "consolidated group") must choose the benefits of the foreign tax credit (as opposed to taking deductions for foreign income taxes) on a group-wide basis (Treas. Reg. sec. 1.1502-4(a)). Each foreign tax credit limitation to which a consolidated group is subject varies directly with the ratio of the foreign source taxable income of the group subject to that limitation to the entire taxable income of the group (Treas. Reg. sec. 1.1502-4(c) and (d)). However, it is possible for a commonly controlled group of U.S. corporations to be split into two or more "affiliated groups" as that term is defined in section 1504.[62] Thus it may be somewhat within a taxpayer's discretion to decide which of its controlled U.S. subsidiaries are treated as part of its affiliated group for foreign tax credit purposes under the consolidated return regulations.

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[60] *See* II.B.2., above, for discussion of boycotts.

[61] The international boycott factor is a fraction, determined under regulations, the numerator of which reflects the worldwide operations of a person (including certain related persons) which are operations in or related to a group of countries associated in carrying out an international boycott in or with which that person (or related persons) has participated or cooperated in the taxable year, and the denominator of which reflects the worldwide operations of that person (and related persons) (sec. 999(c)(1)).

[62] See the detailed discussion of the definition of affiliated group for this purpose in II.D.2., below.

The Treasury has authority to issue regulations that would require a taxpayer to resource the income of any member of an expanded affiliated group of corporations (as that term is modified for these purposes), or to modify the consolidated return regulations, to the extent such resourcing or modification is necessary to prevent avoidance of the purposes of the foreign tax credit rules (sec. 904(i)). Generally, only the income of includible corporations (as that term is defined by sec. 1504(b)) is subject to resourcing. For this purpose, however, the determination of whether an includible corporation is part of an affiliated group is made by treating stock owned by attribution under the rules of section 1563 as owned directly, and by disregarding the exclusions from the definition of "includible corporation" listed in section 1504(b).[63]

For example, where an includible corporation indirectly controls another includible corporation through an entity that is not an includible corporation, the Treasury is authorized to recharacterize by regulation foreign source income of the includible corporations as U.S. source income, so that the aggregate U.S. tax liability of those corporations is no less than the tax that would be imposed if, for foreign tax credit purposes, the includible corporations had joined in filing a consolidated return. In addition, the Secretary is authorized to prescribe regulations preventing the avoidance (through disaffiliation) of other provisions relating to the proper calculation of the foreign tax credit, such as the limitation imposed under section 907 with respect to foreign oil and gas extraction taxes.

7. Interaction with other Code provisions

Foreign Sales Corporations

Generally, a FSC is exempt from U.S. tax on a portion of its foreign trade income (referred to as "exempt foreign trade income"). Non-exempt foreign trade income (other than such income that is not determined under the special FSC administrative pricing rules) is treated as domestic source income. A FSC is not permitted to claim a foreign tax credit for foreign taxes paid or accrued with respect to foreign trade income (sec. 906(b)(5)). Moreover, section 901(h) provides that no direct or indirect foreign tax credit is permitted with respect to foreign income, war profits, and excess profits taxes paid or accrued with respect to the foreign trade income of a FSC other than non-exempt foreign trade income determined without regard to the special FSC administrative pricing rules.

Possessions tax credit

Section 936 of the Code permits certain domestic corporations operating in U.S. possessions to claim a tax sparing credit with respect to U.S. taxes on specified possession-based (and other) income

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[63] Section 1504(b) excludes tax-exempt corporations, insurance companies, foreign corporations, qualified possessions corporations, regulated investment companies, real estate investment trusts, and DISCs.

(See detailed discussion at II.G.2., below). Foreign taxes paid or accrued with respect to taxable income that is taken into account in computing the section 936 credit are neither creditable nor deductible (sec. 936(c)).

Generally, corporate shareholders of these so-called "possessions corporations" may claim a dividends received deduction for dividends received from a possessions corporation. No foreign tax credit may be claimed for taxes paid to a foreign country or U.S. possession on a distribution from a possessions corporation with respect to which a dividends received deduction is allowed (or if the distribution is in the form of a tax free liquidation) and which is attributable to periods when a section 936 election was in effect (sec. 901(g)). Thus, for example, if Puerto Rico imposes a withholding tax on a dividend from a 936 corporation operating in Puerto Rico to its U.S. parent, that withholding tax is not a creditable tax.

The Code also specifies that the various foreign tax credit limitations are to be computed without taking into account any portion of the taxable income of a qualified possessions corporation that is taken into account for purposes of computing the possessions tax credit (sec. 904(b)(4)).

8. Alternative minimum tax foreign tax credit

Under present law, taxpayers are subject to an alternative minimum tax which is payable, in addition to all other tax liabilities, to the extent that it exceeds the taxpayer's regular income tax liability (sec. 55(a)). In the case of a corporation, the tax is imposed at a flat rate of 20 percent on alternative minimum taxable income in excess of a phased out exemption amount. The tax rate is 24 percent for taxpayers other than corporations.

As a general rule, foreign tax credits cannot be used to offset more than 90 percent of the pre-foreign tax credit tentative minimum tax (determined without the net operating loss deduction, the special energy deduction, and investment tax credits).[64] For example, assume that a corporation has $10 million of alternative minimum taxable income and is subject to the alternative minimum tax. In the absence of foreign tax credits, the taxpayer's tax liability would equal $2 million. Accordingly, the alternative minimum tax foreign tax credit cannot be applied to reduce the taxpayer's tax below $200,000.

D. Source Rules

Rules determining the source of income are important because the United States acknowledges that foreign countries have the first right to tax foreign income, but the United States generally imposes its full tax on U.S. income. The mechanism by which this second goal is carried out (in the case of a U.S. person, whose worldwide income is potentially subject to U.S. taxation) is the foreign tax credit limitation; and the source rules primarily are important for U.S. persons insofar as these rules determine the amounts of their foreign tax credit limitations.[65] That is, a premise of the foreign tax credit is that it should not reduce a taxpayer's U.S. tax on its U.S. source income, but only a taxpayer's U.S. tax on its foreign source income.[66] For the foreign tax credit mechanism to function, then, every item of income must have a source: that is, it must arise either within the United States or outside the United States.

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[64] Certain domestic corporations operating solely in one foreign country with which the U.S. has an income tax treaty in effect are not subject to the 90-percent limitation on the use of the foreign tax credit if certain other specified criteria are satisfied (sec. 59(a)(2)(C)).

In order to compute the foreign tax credit limitation, it is necessary to compute a taxpayer's *taxable* income from foreign sources. Taxable income from foreign sources is computed by (1) determining the items of gross income that are from foreign sources, and then (2) subtracting from that amount of gross income that portion of the taxpayer's deductions that are allocable to foreign source gross income. The following discussion addresses first the sourcing of items of gross income, and then the allocation of items of expense.

1. Source of items of gross income

In general

Depending upon the type, gross income may be sourced under the Code by reference, in whole or in part, to various factors: for example, the location or nationality of the payor (as in the case of interest income in general), the location or nationality of the recipient (as in the case of certain ocean and space activities income), the location of the activities of the income recipient that generate the income (as in the case of services or manufacturing income), or the location of the assets (or the use of the assets) that generate the income (as in the case of rents or royalties).

In the context of the foreign tax credit, it is the function of the source rules to distinguish that portion of income over which the United States has primary taxing jurisdiction from those over which foreign taxing jurisdictions are to have primary taxing authority.[67] Thus, the choice of a sourcing rule may be affected by a view as to whether a foreign jurisdiction is likely to tax the income.[68] Decisions about this likelihood may reflect views on the principles (other than, say, custom) under which an assertion of tax jurisdiction over the income of a U.S. person by a foreign government is considered appropriate. Such principles could include views on what are the fair limits of territorial jurisdiction to be imposed by foreign governments over U.S. residents, or what activities of U.S. residents entitle them to foreign governmental protections, and hence might in fairness obligate them to bear foreign tax burdens imposed by those governments.

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[65] With respect to foreign persons, the source rules primarily are important in determining the income over which the United States asserts tax jurisdiction (foreign persons are subject to U.S. tax on their U.S. source income and certain foreign source income that is effectively connected with a U.S. trade or business).

[66] The foreign tax credit for any year may not exceed the following amount: (a) pre-credit U.S. tax, multiplied by the quotient of (b) foreign source taxable income divided by (c) entire taxable income (sec. 904(a)).

[67] For sourcing and foreign tax purposes, the term "United States" includes only the states and the District of Columbia (sec. 7701(a)(9)). Thus, it excludes possessions of the United States.

[68] For example, the legislative history of the 1986 Act contains the following statement:

> Congress did not believe that the potential for double taxation existed where income had little likelihood of attracting foreign tax. With the above in mind, Congress modified prior law's source of income rules to ensure that the United States will assert proper tax jurisdiction over the activities of foreign persons and, with respect to U.S. persons, will treat as foreign source income only that income which is generated within a foreign country and which is likely to be subject to foreign tax.

Staff of the Joint Committee on Taxation, 100th Cong., 1st Sess., *General Explanation of the Tax Reform Act of 1986* at 918 (1987).

Interest

Interest generally is sourced domestically if it is from obligations of the United States or the District of Columbia, or on interest-bearing obligations of noncorporate U.S. residents or U.S. corporations. One exception covers amounts paid by U.S. persons that can show that at least 80 percent of their gross income from all sources for a 3-year testing period was active foreign business income.[69] In that case, interest paid by the U.S. person is treated as foreign source if paid to an unrelated person, and as having a prorated source, based on the source of the income of the payor, if paid to a related person (sec. 861(c)(2)). Other exceptions from U.S. sourcing of interest paid by U.S. persons include interest on deposits with foreign commercial banking branches of domestic corporations or partnerships, and certain other amounts paid by foreign branches of domestic financial institutions. All interest not treated as derived from U.S. sources under the above rules is treated as foreign source income.

Dividends

Dividends from U.S. corporations are sourced domestically unless the payor has an election in effect to use the possessions tax credit (sec. 936), or the payor is a domestic international sales corporation (DISC) or former DISC and the dividends are attributable to qualified export receipts. Dividends from foreign corporations are sourced domestically to the extent treated (under certain dividends received deduction rules) as paid from earnings and profits accumulated by a domestic corporation subject to U.S. taxation. Dividends from a foreign corporation may also be sourced partly domestically if 25 percent or more of the foreign corporation's gross income during a 3-year testing period was effectively connected (or in some cases, deemed effectively connected) with the conduct of a trade or business within the United States, in which case the percentage of the dividend sourced as domestic generally is equal to the ratio of the gross income effectively connected with the conduct of a trade or business in the United States to the payor's entire gross income for that period. All dividends not treated as derived from U.S. sources under the above rules are treated as foreign source income.

Anti-abuse rule concerning interest, dividends, and income inclusions from foreign corporations

Because the source of interest and dividend income paid by a foreign corporation generally is foreign, in the past it was thought that opportunities might exist for U.S. persons to convert U.S.

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[69] For this purpose, active foreign business income includes foreign source income earned by the taxpayer in the active conduct of a foreign business as well as dividends received by a corporation from a 50-percent-or-more owned subsidiary which are attributable to the subsidiary's active business conducted outside of the United States (sec. 861(c)(1)(B)).

source income into foreign source income, and thus increase their foreign tax credit limitation, by routing U.S. source income through a foreign corporation. Therefore, in addition to the ordinary rules for sourcing interest and dividends, since 1984 the Code has contained a special rule for sourcing interest, dividends, and income inclusions from U.S.-owned corporations under subpart F, the foreign personal holding company rules, and, since 1986, the passive foreign investment company (PFIC) rules that would otherwise be treated as derived from foreign sources (sec. 904(g)).

In general, subpart F and foreign personal holding company inclusions, and inclusions from a PFIC that is treated as a qualified electing fund, are U.S. source income to the extent attributable to U.S. source income of a U.S.-owned foreign corporation with respect to which the inclusions are required.

These rules apply for purposes of the foreign tax credit limitation only. The rules maintaining the source of U.S. source income apply only to subpart F and foreign personal holding company inclusions, inclusions from a PFIC that is treated as a qualified electing fund, interest, and dividends that would otherwise be treated as derived from foreign sources. A foreign corporation is a "U.S.-owned foreign corporation" for purposes of these rules if 50 percent or more of either the total combined voting power of all classes of its voting stock or the total value of its stock is held directly or indirectly by U.S. persons.

Personal services

Compensation for labor or personal services performed in the United States is sourced domestically except compensation for labor performed by certain nonresident aliens that meets certain *de minimis* criteria. Compensation for labor or personal services performed without the United States is sourced foreign.

Insurance income

Underwriting income from issuing insurance or annuity contracts (that is, premiums earned on insurance contracts less losses incurred and expenses incurred) is sourced domestically if the contract is in connection with property in, liability arising out of an activity in, or lives or health of residents of the United States. Also treated as U.S. source underwriting income are amounts in connection with other risks, if received as a result of an arrangement whereby another corporation receives a substantially equal amount of premiums or other consideration in respect to issuing (or reinsuring) an insurance or annuity contract in connection with property in, liability arising out of activity in, or the lives or health of residents of, the United States. All underwriting income not treated as derived from U.S. sources under the above rules is treated as foreign source income.

Transportation income

Generally, 50 percent of income attributable to transportation which begins or ends in the United States is U.S. source. If the transportation both begins and ends in the United States, 100 percent of the transportation income is U.S. source. For this purpose, transportation income is income derived from, or in connection with, the use, or hiring or leasing for use, of a vessel or aircraft or the performance of services directly related to the use of such vessel or aircraft. Income from the performance of services attributable to transportation that begins and ends in the United States is fully U.S. source income, and income from the performance of services attributable to transportation between the United States and a U.S. possession is subject to the regular 50-50 rule for transportation income. However, any other income from the performance of services by seamen or airline employees for transportation that begins or ends in the United States, and not described above is not transportation income and is sourced as personal service income: income attributable to services performed in the United States or within the U.S. territorial waters is U.S. source.

Income from space or ocean activities or international communications

In the case of a U.S. person, income from an activity in space or on or under international waters generally is sourced domestically. International communications income is sourced 50 percent domestically and 50 percent foreign.

Rents and royalties

Rents or royalties from property (or interests in property) located in the United States, and rents or royalties for the use of or privilege of using intangible property in the United States are sourced domestically. Correspondingly, rents or royalties from property (or interests in property) located outside the United States, and rents or royalties for the use of or privilege of using intangible property outside the United States are sourced foreign.

Dispositions of real property

Gains, profits, and income from the disposition of a United States real property interest are sourced domestically. Gains, profits and income from the sale or exchange of real property located outside the United States are sourced foreign.[70]

Sales of personal property

In general

Subject to significant exceptions, income from the sale of personal property generally is sourced on the basis of the residence of the seller. Similarly, foreign currency gain or loss generally is sourced on the basis of the residence of the taxpayer or the qualified business unit of the taxpayer on whose books the asset, liability, or item of income or expense is properly reflected. For these purposes, the term "nonresident" is defined to include any foreign corporation. The term "nonresident" is also defined to include any nonresident alien who does not have a "tax home" (as defined in sec. 911(d)(3)) in the United States.[71]

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[70] Notwithstanding the general definition of "United States" explained above, interests with respect to property located in the U.S. Virgin Islands are treated as U.S. real property interests under the Foreign Investment in Real Property Tax Act (sec. 897(c)(1)(A)(i)) and the gain on the disposition of real property located in the U.S. Virgin Islands is foreign source under section 862(a)(8), and thus treated as foreign source effectively connected income.

Inventory property

Gains, profits, and income derived from the purchase of inventory property within the United States and its sale or exchange without the United States are sourced foreign. Similarly, gains, profits, and income derived from the purchase of inventory property without the United States and its sale or exchange within the United States are sourced domestically. Income attributable to the marketing of inventory property by U.S. residents in other cases also has its source at the place of sale.

Title passage rule generally.—The place of sale generally is the place where title to the property passes to the purchaser (the "title passage" rule). This title passage rule applies both to all income from the purchase and resale of inventory and to the marketing portion of income from the production of inventory property in the United States and marketing of that property abroad. Moreover, this rule applies regardless of whether the sale is to an unrelated purchaser or to a related person (for example, a foreign corporate subsidiary) that resells the property to an unrelated purchaser.

It may be noted that in some cases passage of title in a foreign country may not in itself generate a sufficient foreign nexus for the imposition of tax by that country on the income of the U.S. seller. In 1986, Congress repealed prior law application of the title passage rule to gains from the sale of certain types of personal property, but rejected such a change in this rule in the case of inventory property. According to the legislative history of the 1986 Act:

> Congress recognized that prior law's source rules for income derived from sales of personal property sometimes allowed U.S. taxpayers to freely generate foreign income subject to little or no foreign tax, but was concerned that its repeal for sales of inventory property would create difficulties for U.S. businesses competing in international commerce. Moreover, with the substantial trade deficits of the United States, Congress did not want to impose any obstacles that might exacerbate the problems of U.S. competitiveness abroad. Congress was concerned with the tax policy implications of prior law, however, and directed the Treasury Department to study the source rule for sales of inventory property taking into account not only the tax policy implications of the rule but also Congress' concerns regarding the impact of this rule on U.S. trade.[72]

Production/marketing split.—Income derived from the manufacture of products in the United States and their sale elsewhere is treated as having a divided source. Under Treasury regulations, 50 percent of such income generally is attributed to the place of production (in this case, the United States), and 50 percent of the income is attributed to marketing activities and is sourced on the basis of the place of sale (determined under the title passage rule). Under certain circumstances, the division of the income between production and marketing activities must be made on the basis of an independent factory or production price, rather than on a 50-50 basis, where a taxpayer sells part of its output to wholly independent distributors or other selling concerns in such a way as to establish fairly the independent factory or production price unaffected by considerations of tax liability (Treas. Reg. sec. 1.863-3(b)(2), *Example (1)*; Notice 89-10, 1989-4 I.R.B. 10).

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[71] U.S. citizens and residents (as resident generally is defined for Code purposes, per sec. 7701(b)) can, under certain circumstances, be considered "nonresidents" for sale income source purposes if they have a tax home in a foreign country and actually pay an income tax of at least 10 percent of the gain derived from the sale.

[72] Staff of the Joint Committee on Taxation, 100th Cong., 1st Sess., *General Explanation of the Tax Reform Act of 1986* at 918 (1987).

As an illustration, assume that a U.S. corporation manufactures in the United States a product that can be sold to an unrelated foreign buyer at a price that generates $100 of gross income. (For simplicity, assume a zero cost of goods sold so that the price also equals $100.) Assume that the U.S. corporation makes such a sale.[73] The corporation arranges its affairs so that under Treasury regulations, the product is treated as sold in a foreign country. No independent factory or production price is applicable.

Under these assumptions, the corporation generally would be permitted to treat $50 of the gross income from the sale as foreign source gross income, and the remainder as U.S. source gross income. Assume for purposes of this example that no deductions are allocable to this foreign source gross income and that no foreign income tax is imposed on the corporation's income from the sale. Using excess foreign tax credits generated by its other foreign income, the corporation may be entitled to exemption from U.S. tax on up to $50 of the taxable income from this sale.

Assume the above facts except that there is an applicable independent factory or production price that applies to the product pursuant to Notice 89-10. Assume that this price is $75. Under this assumption, the U.S. corporation would be entitled to exemption from U.S. tax on up to, at most, $25 of the taxable income from this sale.

Now assume that instead of selling directly to the foreign purchaser, the U.S. corporation has a foreign corporate sales subsidiary. The U.S. corporation sells the product to the sales subsidiary so that the product is treated as sold in a foreign country, and the subsidiary sells the product to the purchaser for $100. Assume that the arm's length price of the product between the parent and subsidiary is $75. If no independent factory or production price is applicable, then $37.50 of the parent's gross income from the sale is sourced domestically. The other $37.50 of the parent's gross income is sourced foreign and may be exempt from tax by use of excess foreign tax credits from other income. The remaining $25 of income from the sale belongs to the foreign subsidiary. Depending on the circumstances, this income may bear no current U.S. tax, or may be subject to current U.S. tax under subpart F as an amount of foreign source income of the parent deemed distributed from the subsidiary. In either case, the $25 may be eligible for permanent exemption from U.S. tax due to foreign tax credits. Thus, a total of up to $62.50 of income from the manufacture and sale of the product is eligible for potential U.S. tax exemption.

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[73] Such a "direct" sale could result from marketing by a branch of the corporation located in the foreign country. Or it could result from marketing by a broker or other unrelated intermediary or agent operating abroad, or simply from marketing activities performed wholly within the United States.

If in the above example there was also an applicable independent factory price of $75, then all of the parent's income from its sale to the subsidiary would be U.S. source, and (as in the case of the direct sale of the product using an independent factory price of $75) only $25 of income from the manufacture and sale of the product to an unrelated party would be eligible for partial or total U.S. tax exemption through foreign tax credits.

Sales through a foreign sales corporation.—As an alternative, in part, to the use of foreign tax credits to reduce or eliminate U.S. tax on income from export sales, U.S. tax on such income may be reduced by selling to a foreign sales corporation (FSC) that sells to unrelated buyers, or having a FSC act as commission agent with respect to export sales. In this case, a portion of the income from exports will be free of U.S. tax as "exempt foreign trade income" of the FSC. Another portion will be subject to tax at the FSC level with no foreign tax credit. The remaining portion is subject to tax in the hands of the manufacturer or other supplier, with sourcing and foreign tax credit rules as described above. However, the amount of the export income that may be sourced foreign in the hands of a supplier related to the FSC is limited to the amount that would have been foreign source had the sale been made to or by a domestic international sales corporation (DISC) (sec. 927(e)(1)). Under current rules, the IRS does not consider an independent factory or production price to be established, and hence requires use of the 50-50 divided sourcing rule, in the case of a manufacturer or producer that uses a FSC to sell inventory (Notice 89-11, 1989-4 I.R.B. 11; Treas. Reg. sec. 1.861-8(g), *Example (23)*).

To illustrate the foregoing, assume a U.S. corporate manufacturer exports through a wholly owned FSC and uses the combined taxable income method to determine the income of the FSC. Assume combined taxable income from exports is $100. Generally $15 of the combined taxable income is exempt from U.S. tax, and $8 is taxable to the FSC with no foreign tax credit. The remaining $77 is potentially taxable in the hands of the U.S. corporation. Of this amount, approximately $25 may be sourced foreign and the rest (approximately $52) would be domestic source. (The $25 figure is arrived at by applying the 50-50 divided source rule to the amount (approximately $50) that would have been income of the manufacturer were the sale made to or by a DISC, using the DISC combined taxable income pricing rule of section 994(a)(2).) As this example demonstrates, up to approximately 40 percent of the income from exports may be exempted from U.S. tax through a combination of the FSC-level exemption and the use of foreign tax credits at the related supplier level.

Study of title passage rule.—The Tax Reform Act of 1986 ("the 1986 Act") directed the Treasury Department to study the effect of the title passage rule as it applies in determining the source of the income from the sale of inventory property. That study is to take into account the 1986 Act's lower tax rates and Congressional trade concerns. Although the report arising from that study was originally due not later than September 30, 1987, no such report has yet been produced. Under the Omnibus Budget Reconciliation Act of 1990, the due date of the study was moved to January 1, 1992 (Act sec. 11831(b)).

Income derived from the sale of depreciable personal property

Subject to a special rule, income derived from the sale of depreciable personal property, to the extent of prior depreciation deductions, is sourced under a recapture principle. Specifically, gain to the extent of prior depreciation deductions from the sale of depreciable personal property is sourced in the United States if the depreciation deductions giving rise to the gain were previously allocated against U.S. source income. If the deductions giving rise to the gain were previously allocated against foreign source income, gain from the sales (to the extent of prior deductions) is sourced foreign. Any gain in excess of prior depreciation deductions is sourced pursuant to the place of sale rule, as under prior law. These rules apply without regard to the residence of the taxpayer.

Depreciation deductions, as defined for this purposes, mean any depreciation or amortization or any other deduction allowable under any provision of the Code which treats an otherwise capital expenditure as a deductible expense.

A special rule applies for determining the source of recapture income from the sale of certain depreciable personal property. If personal property is used predominantly in the United States for any taxable year, the taxpayer must treat the allowable deductions for such year as being allocable entirely against U.S. source income. If personal property is used predominantly outside the United States for any taxable year, the taxpayer must treat the allowable deductions for such year as being allocable entirely against foreign source income. This special rule does not apply for certain personal property generally used outside the United States (personal property described in sec. 168(g)(4)). Consequently, a segregation of allowable deductions between the sources of income the deductions previously offset is required for such property.

Income attributable to an office or other fixed place of business

Another exception to the residence-of-the-seller rule applies to income derived from the sale of personal property when the sale is attributable to an office or other fixed place of business.

For U.S. residents, this office rule applies only if income is not already sourced as U.S. or foreign under the place-of-sale rule (which applies to inventory property, gain in excess of recapture income for certain depreciable personal property, and stock of certain affiliates), or the recapture rule for depreciable personal property. Under this office rule, U.S. residents that derive income from sales of personal property attributable to an office or other fixed place of business maintained in a foreign country generate foreign source income. However, the office rule only applies to U.S. residents, individual or otherwise, if an effective foreign income tax of 10 percent or more is paid to a foreign country on the income from the sale.

In determining whether income is attributable to an office or other fixed place of business, the principles embodied in Code section 864(c)(5) apply. Thus, in general, the office of an independent agent is not attributed to a taxpayer, an office must be a material factor in the production of income, and income must be properly allocated to an office.

Income derived from the sale of stock in foreign affiliates

A place-of-sale rule applies to income derived by U.S. corporations from the sale of stock in certain foreign corporations. If a U.S. corporation sells stock of a foreign affiliate in the foreign country in which the affiliate derived from the active conduct of a trade or business more than 50 percent of its gross income for the 3-year period ending with the close of the affiliate's taxable year immediately preceding the year during which the sale occurs, any gain from the sale is foreign source. An affiliate, for this purpose, is any foreign corporation whose stock is at least 80 percent owned (by both voting power and value). A U.S. resident may for this purpose treat as one corporation an affiliate and all other corporations which are wholly owned by the affiliate.

Goodwill and other intangibles

Payments in consideration for the sale of goodwill are treated as from sources in the country in which the goodwill was generated. In the case of other intangibles, any gain in excess of amortization deductions (if any) are subject to the residence-of-the-seller rule only to the extent the payments in consideration of the sale are not contingent on the productivity, use, or disposition of the intangible. Payments that are so contingent are sourced as royalties.

2. Allocation and apportionment of deductions

a. General rules

In general, the primary statutory rule for allocating and apportioning deductions between foreign and domestic income is that there shall be deducted from domestic and foreign source gross income, respectively, the expenses, losses, and other deductions "properly apportioned or allocated thereto" and "a ratable part of any expenses, losses, or other deductions which cannot definitely be allocated to some item or class of gross income" (secs. 861(b) and 862(b)). Furthermore, the Code provides that items of expense, loss, and deduction are to be allocated or apportioned to sources within or without the United States under regulations prescribed by the Secretary (sec. 863(a)).

Although the Code contains some further rules, to be described below, on the allocation and apportionment of deductions, these statutory rules are relatively recent refinements, enacted in 1986, to the comprehensive rules previously laid down in regulations (until 1986 primarily Treas. Reg. sec. 1.861-8) solely under the very broad statutory authority described above. The regulations are in general designed to serve as the allocation rules for both outbound purposes (generally, computation of the foreign tax credit limitation) and inbound purposes (generally, computation of a foreign person's taxable income effectively connected with a U.S. trade or business).[74]

Basic terminology—"Classes" and "groupings" of income

As expressly provided in the statute, deductions not definitely related to gross income (e.g., charitable deductions—but see Proposed Treas. Reg. sec. 1.861-8(e)(12)), are apportioned on a pro rata basis between domestic and foreign source gross income. The regulations contemplate two other types of deductions: (1) deductions definitely related to all of the taxpayer's gross income, and (2) deductions definitely related to a subset or "class" of the taxpayer's gross income. Division of the taxpayer's income into classes for this purpose, and determination of whether a particular deduction is related to that class, is based on the factual relationship between the deduction and the class of gross income. A deduction is considered definitely related to a class of gross income if it is incurred as a result of, or incident to, an activity or in connection with property from which that class of gross income is derived (Treas. Reg. sec. 1.861-8(b)(2)).

Once deductions are associated with the corresponding class of gross income (or all of gross income), an apportionment is made between the so-called "statutory grouping" of income in that class (for foreign tax credit purposes, generally the foreign source income within the particular foreign tax credit limitation category for which the limitation is being computed) and the so-called "residual grouping" (for foreign tax credit limitation purposes, generally all the rest of the income in the class not in the "statutory grouping").

The apportionment method is one which reflects to a reasonably close extent the factual relationship between the deduction and the grouping of gross income. In general, examples of bases and factors which should be considered include, but are not limited to: (1) comparison of units sold, (2) comparison of the amount of gross sales or receipts, (3) comparison of costs of goods sold, (4) comparison of profit contribution, (5) comparison of expenses incurred, assets used, salaries paid, space utilized, and time spent which are attributable to the activities or properties giving rise to the class of gross income, and (6) comparison of the amount of gross income (Treas. Reg. sec. 1.861-8T(c)(1)). The effects of tax liability of the apportionment of deductions and the burden of maintaining records not otherwise maintained and making computations not otherwise made shall be taken into consideration in determining whether a method of apportionment and its application are sufficiently precise (*id.*).

Tax-exempt income

As required by the 1986 Act, a tax-exempt asset and income from that asset are not taken into account for purposes of allocating and apportioning any deductible expense (Code sec. 864(e)(3); Treas. Reg. sec. 1.861-8T(d)(2)). Assume, for example, that a U.S. corporation has two assets, a tax-exempt bond, and stock in a foreign corporation. Assume that the U.S. corporation's income consists of $100 of U.S. source interest on the bond and $100 of foreign source income from the stock. Assume that the U.S. corporation has a deduction of $50 to allocate and apportion between income from U.S. and foreign sources. Under this rule, the entire deduction reduces foreign source gross income, resulting in $50 of taxable income from foreign sources.

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[74] In the case of interest, however, the inbound and outbound rules are separate. *Compare* Treas. Reg. secs. 1.882-5 and 1.861-9T(d)(2) and (e)(7) (inbound rules) *with* Treas. Reg. secs. 1.861-9T through 1.861-12T (outbound rules)).

For this purpose, a similar rule applies to the extent that dividends (other than dividends qualifying under section 243(b) for the 100-percent dividends received deduction) are eligible for the dividends received deduction under section 243 or section 245(a), and with respect to any stock yielding such dividends (again, not including "qualifying dividends" under section 243(b)). Thus, 80 percent of stock that pays dividends that are eligible for the 80-percent dividends received deduction is treated as a tax-exempt asset. Other Code provisions disallow deductions for expenses in certain cases. For instance, expenses incurred to carry tax-exempt assets are sometimes disallowed (*see, e.g.*, sec. 265). Expenses disallowed under such rules are not allocated under this provision.

Asset-based apportionment

In the case of apportionment on the basis of assets, the regulations provide that generally such apportionment must be made either on the basis of the tax book value of those assets or on their fair market value. However, once the taxpayer uses fair market value, the taxpayer and all related persons must continue to use such method unless expressly authorized by the Commissioner to change methods (Treas. Reg. secs. 1.861-8T(c)(2) and 1.861-9T(g)(1)).

When the tax book value method of apportionment is used, a principle enacted by statute in the 1986 Act must be followed in valuing stock in a 10-percent or more owned corporation not included in the group treated as one taxpayer.[75] The adjusted basis of the stock owned in such corporation in the hands of a U.S. shareholder is increased by the amount of the earnings and profits of the corporation attributable to that stock and accumulated during the period the taxpayer held it. Earnings and profits are not limited to those accumulated in post-enactment years. In the case of a deficit in earnings and profits of the corporation that arose during the period when the U.S. shareholder held the stock, that deficit reduces the adjusted basis of the asset in the hands of the shareholder. In that case, however, the deficit cannot reduce the adjusted basis of the asset below zero.

This adjustment to asset value on a look-through basis also applies to stock of a foreign corporation that is not directly held by the U.S. taxpayer but that is indirectly 10-percent owned by the U.S. taxpayer. For example, if a U.S. corporation owns a first-tier foreign corporation that owns a second-tier foreign corporation, the U.S. corporation is to increase the asset basis to which it allocates expenses by its share of earnings and profits accumulated while the taxpayer held, indirectly or directly, 10 percent or more of that stock in the second-tier foreign corporation.

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[75] In general, two kinds of 10-percent owned corporations are not included in the one-taxpayer group: foreign corporations, and U.S. corporations that are more than 10- but less than 80-percent owned.

One-taxpayer rule generally

Another rule imposed by the 1986 Act requires that interest, and deductions other than interest which are not directly allocable or apportioned to any specific income producing activity, generally be allocated and apportioned as if all members of an affiliated group were a single corporation (sec. 864(e)(1) and (6)). Because the regulations under which this "one-taxpayer rule" is applied are different in the case of interest than in the case of other deductions, they are discussed separately below.

b. Specific types of deductions

As demonstrated above, much of the general framework for expense allocation is set forth by regulation, with a few of the specific rules mandated by statute. Similarly, the regulations prescribe specific allocation methods for certain enumerated types of expense: interest, research and experimental expenditures, stewardship expenses attributable to dividends received, legal and accounting fees, income taxes, losses on disposition of property, net operating losses, and, under proposed regulations, charitable contributions. In the case of interest and research expenses, statutory rules dictate specific aspects of those rules.

Interest

In the case of interest expense, regulations generally are based on the approach that money is fungible and that interest expense is properly attributable to all business activities and property of a taxpayer, regardless of any specific purpose for incurring an obligation on which interest is paid. Exceptions to fungibility are recognized or required, however, in particular cases, as described below. As described above, the Code provides that for interest allocation purposes all members of an affiliated group of corporations are generally to be treated as a single corporation (the so-called "one-taxpayer rule"). In addition, the Code provides that allocation must be made on the basis of assets rather than gross income. As explained above, under the one taxpayer rule, the factors affecting the allocation of interest expense of one corporation may affect the sourcing of taxable income of another related corporation, even if the two corporations do not elect to file, or are ineligible to file, consolidated returns (*see, e.g.,* Treas. Reg. sec. 1.861-11T(g)).

One taxpayer rule—interest allocation

Basic provisions

In theory, total fungibility of money would require each dollar of interest expense of a commonly controlled group of companies to be allocated evenly throughout the group. The Code limits fungibility to the "affiliated group." Affiliated group in this context generally is defined by reference to the rules for determining whether corporations are eligible to file consolidated returns. The statutory definition of affiliation for purposes of group-wide allocation of interest expressly provides for two exceptions from the definition of affiliation for consolidation purposes, one of which contracts the affiliated group and the other of which expands it.

Under the first-mentioned exception, the affiliated group for interest allocation purposes generally excludes any corporation, otherwise a member of the affiliated group for consolidation purposes, that is a financial institution (described in section 581 or 591), the business of which is predominantly with persons other than related persons or their customers, and which is required by State or Federal law to be operated separately from any other entity which is not a financial institution. (A group or subgroup of two or more such institutions which are affiliated for consolidation purposes may, however, be treated as a single corporation for interest allocation purposes.) Under the second exception referred to above, the affiliated group for interest allocation purposes includes any corporation which has elected the application of the possession tax credit for the taxable year, if the corporation would be excluded solely for this reason from the affiliated group as defined for consolidation purposes.

In addition to the express statutory differences between the consolidated return and interest allocation definitions of affiliation, regulations provide for further differences. Under the statutory rules requiring interest to be allocated on a group-wide basis, and more generally under the statutory rules for determining the foreign tax credit and the limitations applicable to the credit, the Treasury Department has been delegated the authority to resource the income of any member of an affiliated group or modify the consolidated return regulations to the extent such resourcing or modification is necessary to carry out the purposes of the statute. Temporary and proposed Treasury regulations provide that certain corporations not within the general definition of an affiliated group, such as any includible corporation if 80 percent of the vote *or* value of its stock is owned directly *or indirectly* by an includible corporation or by members of an affiliated group, will be considered to constitute affiliated corporations for purposes of the interest expense allocation rules (Treas. Reg. sec. 1.861-11T(d)(6)(i); *see also* Notice 89-91, 1989-2 C.B. 408).[76]

Thus, some groups of corporations are eligible to file consolidated returns yet are not treated as affiliated for interest allocation purposes, and other groups of corporations are treated as affiliated for expense allocation purposes even though they are not eligible to file consolidated returns.

General purpose of the one-taxpayer rule

As explained above, the one-taxpayer rule is required by statute (sec. 864(e), enacted in 1986) and represents a major departure from the pre-1986 regulations that permitted separate company allocations. The following examples illustrate the tax planning possibilities under pre-1986 regulations.

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[76] Under the affiliation rules for filing consolidated returns, an includible corporation can only be part of an affiliated group if 80 percent of the vote *and* value of its stock is owned *directly* by an includible corporation that itself is in the affiliated group (or group of includible corporations in the affiliated group).

Example 1: Assume that a U.S. corporation had $100 of U.S. assets and $100 of foreign assets, $20 of gross U.S income and $20 of gross foreign income. It incurred $20 of interest expense. Its net income was $20 ($40-$20). The interest expense reduced gross U.S. income and gross foreign income equally, resulting in $10 of each.

Under the Treasury regulations in effect prior to the effective date of the 1986 Act, if all the taxpayer's assets generated gross U.S. income, then all the taxpayer's interest expense reduced gross U.S. income. To avoid having interest expense reduce foreign income, taxpayers could isolate interest expense in a corporation whose assets produced only U.S. income. This rule created opportunities for tax avoidance, as shown in the following example.

Example 2: The facts are the same as Example 1, above, except that the U.S. parent corporation initially borrowed cash and contributed the cash to the capital of a U.S. subsidiary corporation (the sole asset of the U.S. parent) which then invested in foreign and domestic assets. These two corporations filed a consolidated return. The U.S. subsidiary had $100 of U.S. assets and $100 of foreign assets, $20 of gross U.S. income and $20 of gross foreign income. It incurred no interest expense. It paid all its $40 of earnings to the parent as a dividend. Under the consolidated return regulations, the parent had no income from this dividend, but it had $20 of interest expense. This $20 reduced only U.S. income.[77] The group had $20 of net foreign income (the interest expense did not reduce foreign income) and no net U.S. income. If foreign tax credits sheltered all the foreign income, the U.S. corporation could eliminate its U.S. tax on U.S. income, and consequently owe no U.S. tax at all.

In addition, as shown in the following example, the rules requiring allocation on a separate company basis could furnish a trap for the unwary.

Example 3: U.S. corporation 1 owned $100 of U.S. business assets and U.S. corporation 2 owned $100 of assets that it used in a foreign business. These corporations filed a consolidated return. U.S. corporation 2 incurred $20 of interest expense, while corporation 1 incurred no interest expense. Under the regulations, this $20 would have reduced only foreign gross income.

Current law—Affiliated group definition

The 1986 Act rules do not require each dollar of expense of a commonly controlled group of companies to be allocated evenly throughout the group. Where foreign corporations are part of the commonly controlled group, for example, their expenses, assets, and income generally are ignored for expense allocation purposes.[78] An alternative rule that would have taken such expenses and assets into account for interest allocation purposes was passed by the Senate in 1986 and expressly rejected by the 1986 Act conferees. The following is a detailed discussion of the rules arising from that legislative decision, and remaining possibilities for manipulation of interest allocation through separate entities.

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[77] The subsidiary was a U.S. asset in the hands of the parent under prior law as long as less than 80 percent of its gross income from the prior three years was foreign source.

[78] However, stock in such a foreign corporation held by the affiliated group members is considered an asset in performing the interest-based allocation and apportionment.

Definition of affiliated group—consolidated return rules.—For consolidation purposes, the term "affiliated group" means one or more chains of includible corporations connected through stock ownership with a common parent corporation which is an includible corporation, but only if the common parent owns directly at least 80 percent of the total voting power of all classes of stock *and* at least 80 percent of the total value of all outstanding stock of at least one other includible corporation.[79] In addition, for each such other includible corporation (except the common parent) stock possessing at least 80 percent of the total voting power of all classes of its stock and at least 80 percent of the total value of all of its outstanding stock must be directly owned by one or more other includible corporations.

The Treasury has authority to prescribe regulations necessary or appropriate to carry out the purposes of the affiliated group definition. These include (but are not limited to) regulations (1) which treat warrants, obligations convertible into stock, and other similar interests as stock, (2) which treat stock as not stock (for example, which disregard such instruments in determining which corporations may join together to file consolidated returns), (3) which treat options to acquire or sell stock as having been exercised, (4) which disregard transfers of stock within an affiliated group in determining whether affiliated group status is broken, or (5) which disregard changes in voting power to the extent such changes are disproportionate to related changes in value. To date, no regulations have been issued to treat stock as not stock.

Definition of affiliated group—special interest allocation rules.—Subject to exceptions, the consolidated return and interest allocation definitions of affiliation generally are consistent with each other. For example, both definitions exclude all foreign corporations from the affiliated group. Thus, while debt generally is considered fungible among the assets of a group of domestic affiliated corporations, the same rule does not apply as between the domestic and foreign members of a group with the same degree of common control as the domestic affiliated group. Moreover, Congress in 1986 expressly considered and rejected a rule that would have accomplished a result more consistent with world-wide fungibility by taking foreign members' borrowings into account when allocating the interest expense of the domestic members (H.R. Rep. No. 99-841, 99th Cong., 2d Sess. II-605 (1986)). In practice, the limit in the degree of fungibility recognized by present law can reduce the foreign tax credit limitations that otherwise would apply if the principle of fungibility were extended to foreign and domestic members of a commonly controlled group.

Another consequence of the consistency between the definitions of affiliation for interest allocation purposes and consolidated return purposes is that the one-taxpayer allocation rule has a

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[79] Generally the term "includible corporation" means any domestic corporation except certain corporations exempt from tax under section 501 (for example, corporations organized and operated exclusively for charitable or educational purposes), certain life insurance companies, foreign corporations, corporations electing application of the possession tax credit, regulated investment companies, real estate investment trusts, and domestic international sales corporations.

"cliff" at the 80 percent control level. That is, the taxable income of a 79-percent owned subsidiary may be sourced far differently than the taxable income of an 80-percent owned subsidiary that is in all other respects similarly situated.

In order to avoid the effects of total (or near total) fungibility of debt within the affiliated group of domestic corporations and failure of the law to account for debt of related foreign corporations, taxpayers have sought to isolate debt within certain subsidiaries by transferring slightly more than 20 percent of both the vote and value of the stock of those subsidiaries to unrelated persons. Some taxpayers have sought to achieve this result by transferring outside the group types of stock that may differ to a relatively insignificant extent either from non-voting classes of stock expressly excluded from the statutory definition of "stock" for affiliation purposes, or from debt.[80]

Debt of controlled foreign corporations to U.S. shareholders (the "netting rule")

Current regulations provide a special rule that directly allocates third-party interest expense of the U.S. taxpayer to interest income from controlled foreign corporations (or in some cases amounts with respect to stock in the controlled foreign corporations that are deemed to be interest income for this purpose) (Treas. Reg. sec. 1.861-10T(e)). This rule generally is referred to as the "netting rule." The rule in the current regulations is actually one of three alternative netting rules that the Treasury Department has proposed since 1986. The first such rule was proposed in 1987 but never took effect. The current rule was proposed in 1988 and took effect as a temporary regulation only for years beginning on or after January 1, 1988. A third alternative was issued in proposed form in March 1991. This third proposal is proposed to be effective for taxable years beginning after 1990 and, at the taxpayer's option, for earlier years beginning after 1987.

According to the Treasury Department, enactment of the one-taxpayer rule resulted in a behavioral response by multinational groups designed, in effect, to route the third party debt of their controlled foreign corporations through their U.S. affiliated groups, thus achieving the benefits of the world-wide group fungibility rule rejected by the 1986 Act conferees.[81] The Treasury Department expressed the view that the more favorable treatment thus achieved encouraged the use of related party loans, even though other considerations, such as minimizing foreign withholding taxes and favorable local interest rates, might have dictated that the borrowing occur at the foreign subsidiary.[82] The three alternative netting rules proposed by the Treasury each curtail, to a greater or lesser extent, tax benefits that might otherwise accompany the anticipated taxpayer behavior.

Examples 4 and 5 illustrate the problem:

Example 4: Assume that a U.S. corporation has $1000 in business assets located in the United States, producing $135 of U.S. source gross manufacturing income and $25 of foreign source marketing income. Assume that it owns all the stock of a foreign corporation that has $1000 of foreign assets and $160 of active foreign source gross income. Each corporation has $500 of debt and incurs $60 of interest expense as its only deduction in arriving at taxable income. The foreign corporation pays $50 in foreign income tax and pays a dividend of $50. (The U.S. corporation pays no foreign tax). The stock of the foreign corporation is worth $500.

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[80] *E.g.*, *Wall Street Journal*, Oct. 12, 1989, at A3, col. 1.

[81] 1991-14 I.R.B. 27, 28.

[82] 1988-2 C.B. at 139.

In this example, the U.S. corporation has $1500 worth of assets. One-third of the assets are comprised of the stock in the controlled foreign corporation, so-called "single category assets" that produce strictly foreign source income (Treas. Reg. sec. 1.861-9T(g)(3)(i)). The other two-thirds of the assets are the business assets, which are so-called "multiple category assets" producing approximately 16 percent foreign source income and 84 percent domestic source income (Treas. Reg. sec. 1.861-9T(g)(3)(ii)). Thus, approximately 44 percent of the assets are treated as producing foreign source income (one-third plus 16 percent of two-thirds), and the remaining 56 percent of the assets are treated as producing U.S. source income. Therefore, the interest expense is allocated approximately 44 percent ($26) to foreign source income, and 56 percent ($34) to U.S. income.

The taxable income of the U.S. corporation is $200: $101 of U.S. source taxable income ($135 minus $34 interest expense) and $99 of foreign source taxable income ($50 net dividend plus $50 gross-up plus $25 marketing income less $26 interest expense). U.S. tax would equal approximately $34, or $68 less a foreign tax credit limited by 99/200ths of $68, or approximately $34.

Example 5: Now assume the same facts except that the U.S. corporation borrows $1000 from a third party and pays it $120 in interest expense, while the foreign corporation borrows $500 from the U.S. corporation and pays it $60 in interest. Assume also that the full $60 related party interest expense is allowed as a deduction for foreign tax purposes. The U.S. corporation still has $1000 in business assets, but it now has $1000 of financial assets ($500 of stock and $500 of debt). Absent a requirement to allocate a portion of the U.S. corporation's interest expense directly to its interest income from its controlled foreign corporation, the $120 of interest expense would be apportioned on the basis of the proportion of assets producing foreign income (now approximately 58 percent) and those producing domestic income (42 percent), resulting in $51 of the interest expense apportioned to U.S. source income, rather than the $34 apportioned to U.S. income in the first example.

Again the taxable income of the U.S. corporation is $200. However, assuming there were no requirement to allocate a portion of the U.S. corporation's interest expense directly to its interest income from its controlled foreign corporation, the U.S. corporation would have $84 of U.S. source taxable income ($135 minus $51 interest expense) and $116 of foreign source taxable income ($50 net dividend plus $50 gross-up plus $60 interest income from the controlled foreign corporation plus $25 of marketing income, less $69 interest expense). U.S. tax would equal approximately $29, or $68 less a foreign tax credit limited by 116/200ths of $68, or approximately $39.

By adjusting its behavior as shown in example 5, the U.S. taxpayer would, in the absence of a requirement to allocate a portion of its interest expense directly to its interest income from the controlled foreign corporation, increase its foreign tax credit limitation by $5. In the example described above, this would in turn permit the relatively high foreign taxes paid by the controlled foreign corporation to offset other income of the group not subject to foreign tax.

1987 proposed regulation.—Under the first version of the netting rule proposed in 1987, third-party interest paid by the affiliated group generally was to be directly allocated to the (foreign source) interest income of the affiliated group on the debt owed to members of the affiliated group by controlled foreign corporations (to the extent of such income).[83] Assume, for example, the facts from example 5 described above, where the U.S. corporation had $1000 of third party debt and $120 of third party interest expense, while the controlled foreign corporation owed it $500 and paid it $60 of foreign source gross interest income. Under the 1987 proposal, the $60 of foreign source gross interest income would be reduced to *zero* foreign source taxable income by directly allocating to it $60 of the U.S. corporation's third party interest expense. The remaining $60 of third party interest expense would be apportioned among all of the U.S. corporation's other income, on the basis of the assets of the U.S. corporation other than the debt owed to it by the controlled foreign corporation.

1988 proposed and temporary regulation.—Under the second, and currently applicable version, a direct foreign allocation of third party interest paid by the affiliated group only occurs if third party indebtedness in the U.S. affiliated group is substantially disproportionate to the third party indebtedness of its related controlled foreign corporations.[84] Specifically, third party interest expense may be allocated directly to foreign source interest income from related controlled foreign corporations only to the extent of interest on so-called "excess related person indebtedness." There is no such excess *unless* the third party debt-to-asset ratio of the related controlled foreign corporations (in the aggregate) is less than 80 percent of the third party debt-to-asset ratio of the related U.S. shareholder.[85] If this condition is met and there is excess related person indebtedness, then U.S. affiliated group interest expense is directly allocated to interest income from the related controlled foreign corporations, but generally only to the extent of interest income of the U.S. affiliated group from related controlled foreign corporations.

Again using the facts of example 5, the third party debt-to-asset ratio of the U.S. corporation is 50 percent, while the third party debt-to-asset ratio of the controlled foreign corporation is zero, which is less than 80 percent of 50 percent. Thus, there is excess related person indebtedness in the example and an amount of the U.S. corporation's third party interest expense is allocated directly to its interest income from the controlled foreign corporation.

Computing the exact amount of excess related person indebtedness requires a determination of the minimum amount of third party debt on the books of the U.S. corporation that would have to be shifted to the books of the controlled foreign corporation (with a corresponding reduction in the intra-group debt) in order for the controlled foreign corporation's third party debt-to-asset ratio to equal no less than 80 percent of the U.S. corporation's third party debt-to-asset ratio. Under the facts of example 5, the minimum amount that would have to be converted is approximately $323.[86] Under the 1988 proposed and temporary regulation, approximately $39, or 323/500ths of the $60 interest income of the U.S. corporation from the controlled foreign corporation is treated as interest income received on excess related person indebtedness. This means, in turn, that $39 of the U.S. corporation's interest expense is directly allocated to its $60 of foreign source gross interest income, resulting in $21 foreign source taxable income from the debt to the U.S. corporation from the controlled foreign corporation. The remaining $81 of interest expense of the U.S. corporation is apportioned among its domestic and foreign source items of income on the basis of its assets other than the $323 of controlled foreign corporation debt.

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[83] Proposed Treas. Reg. sec. 1.861-10(c)(3) and (4), INTL-935-86, 1987-2 C.B. 990, 1011-12.

[84] Treas. Reg. sec. 1.861-10T(e), T.D. 8228, 1988-2 C.B. 136, 156-57.

[85] The requisite percentage was phased in over 3 years. For taxable years beginning in 1988, the percentage was 50, and for years beginning in 1989 it was 65. Treas. Reg. sec. 1.861-10T(e)(1)(iv)(A).

1991 proposed regulation.—The 1991 Treasury proposal would replace the comparison between domestic and foreign third party debt-to-asset ratios with two comparisons: one between present year and base-period levels of borrowing by the U.S. shareholder from third parties (adjusting for year-to-year changes in the assets of the U.S. shareholder), and another between present year and base-period levels of lending by the U.S. shareholder to related controlled foreign corporations (adjusting for year-to-year changes in the assets of those controlled foreign corporations).[87] There must be a current year excess in both levels, as compared to the averages for a five-year base period ("allowable levels"), in order for any direct allocation of third party interest of the U.S. shareholder to foreign source interest income to occur.

If in the current year the amount of debt of each type exceeds the product of current year assets times the average of the previous 5 years' ratios of that type of debt to assets of the relevant company or companies, then under the 1991 proposal, the lesser of the two excesses serves as the basis for the direct allocation of third party U.S. shareholder interest expense to foreign source interest income received by the U.S. shareholder from related controlled foreign corporations. The amount of directly allocated interest expense equals a portion of the interest income received by the U.S. shareholder from the related controlled foreign corporations, based on the proportion of the lesser debt increase to total debt of the related controlled foreign corporations to the U.S. shareholder. In no case, however, will there be a direct allocation if either the current year's level of debt of controlled foreign corporations to the

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[86] That is, suppose that instead of owing $500 to the U.S. corporation, the controlled foreign corporation assumes $323 of the U.S. corporation's third party debt and reduces its intragroup debt from $500 to $177. Then the U.S. corporation's third party debt would be reduced to $677 and its assets are reduced to $1677. Thus its third party debt-to-asset ratio would be 40 percent. Correspondingly, the controlled foreign corporation's third party debt would be increased to $323 (its assets would remain unchanged at $1000), and its third party debt-to-asset ratio would be increased to 32 percent, or 80 percent of the U.S. corporation's third party debt-to-asset ratio.

[87] Proposed Treas. Reg. sec. 1.861-10(e), 1991-14 I.R.B. 27.

U.S. shareholder would have been considered no greater than the "allowable" level as computed for the prior year, or the amount of such debt does not exceed 10 percent of the related controlled foreign corporations' assets. The proposal also takes account of situations in which acquisitions or dispositions change the members of the group.

Illustration of the 1991 proposal by application to the above example requires additional factual assumptions. Thus, under the facts of example 5 above, there is no direct allocation of the U.S. shareholder's third party interest expense to its interest income from related controlled foreign corporations if the same facts held true for the previous five years. Assume however that the facts conformed to those in example 4 for each of the previous 5 years and then changed to those in example 5 for year 6. In that case the tax result of the 1991 proposal would resemble that under the 1987 proposal. A gradual change in the facts over the previous 5 years would yield an intermediate tax result.

Other regulatory exceptions to interest fungibility

Qualified nonrecourse debt.—The regulations provide that in certain cases, the deduction for interest on nonrecourse debt may be directly allocated to the gross income from property acquired, constructed, or improved with the proceeds of the nonrecourse debt (Treas. Reg. sec. 1.861-10T(b)). In order to qualify, the borrowing must be specifically incurred and actually applied for the purpose of purchasing, constructing or improving certain types of identified property. The creditor generally must be required to look only to the identified property as security for payment on the loan, and the cash flow from the property must be reasonably expected to be sufficient to fulfill the terms and conditions of the loan agreement. Finally, disposition and use of the property must be subject to restrictions consistent with the foregoing security and cash flow assumptions. Excluded from qualifying is indebtedness that lacks economic significance, or involves cross collateralization or credit enhancement, the purchase of inventory, or the purchase of any financial asset.

Integrated financial transactions.—Another exception from fungibility exists for debt used to finance certain interest-bearing term investments by persons that are not financial service entities (Treas. Reg. sec. 1.861-10T(c)). In such a case, the taxpayer must incur the debt to make a term investment that is identified by the taxpayer at the time the indebtedness is incurred, that is purchased within 10 days of incurring the debt, and that matures within 10 business days of the debt's maturity date. The income on the investment must be interest, original issue discount, or income equivalent to interest, the return on the investment must be reasonably expected to be sufficient to fulfill the terms and conditions of the loan agreement, and the investment must not relate in any way to the operation of, and must not be made in the normal course of, the trade or business of the taxpayer or any related person.

Research and experimental expense allocation [88]

Regulations promulgated in 1977 set forth a rule for allocating and apportioning research expenses (Treas. Reg. sec. 1.861-8(e)(3)). Since 1981, however, a series of temporary statutory allocation rules has preempted the statutory rules in whole or in part. The currently applicable temporary statutory rule is found at section 864(f) of the Code, and applies only to a taxpayer's first 2 taxable years beginning after August 1, 1989 and on or before August 1, 1991. The following discussion is divided into sections on the regulation and the current statutory rule.[89]

Regulation

The Treasury regulation on research expense allocation and apportionment provides that research expenses are ordinarily considered definitely related to all gross income reasonably connected with one or more of 32 product categories based on two-digit classifications of the Standard Industrial Classification ("SIC") system. Research expenses are not traced solely to the income generated by the particular product which benefited from the research activity. Instead, these expenses are associated with all the income within the SIC product group in which the product is classified.

The regulation contemplates that taxpayers will sometimes undertake research solely to meet legal requirements imposed by a particular governmental entity with respect to improvement or marketing of specific products or processes. In some cases, such research cannot reasonably be expected to generate income (beyond de minimis amounts) outside that governmental entity's jurisdiction. If so, the deductions allowable for such associated research expenses are allocated solely to gross income from the geographic source that includes that jurisdiction.

After research expenses incurred to meet legal requirements are allocated under the above rule, any remaining research expenses generally are apportioned to foreign source income based on the ratio of total foreign source sales receipts in the SIC product group with which the expenses are identified to the total such worldwide sales receipts in that product group (the "sales" or "gross receipts" method). In computing this fraction, sales by a party controlled or uncontrolled by the taxpayer may be taken into account if the party can reasonably be expected to benefit from the research expense. However, the regulation provides that a taxpayer using the sales method may first apportion at least 30 percent of research expense remaining after allocation to meet legal requirements exclusively to income from the geographic source where over half of the taxpayer's research and development is performed.

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[88] For a more detailed discussion of the tax policy implications of the rules discussed below, see Joint Committee on Taxation, *Description of Proposals Relating to Research and Development Incentive Act of 1987 (S. 58) and Allocation of R&D Expenses to U.S. and Foreign Income (S. 716)* (JCS-6-87), April 2, 1987, reprinted in *Interaction Between U.S. Tax Policy and Domestic Research and Development:* Hearings on S. 58 and S. 716 Before the Subcomm. on Taxation and Debt Management of the Senate Comm. on Finance, 100th Cong., 1st Sess. (1987).

[89] For an explanation of the temporary statutory rules as they were in effect between 1981 and 1988, see, e.g., Joint Committee on Taxation, *Description of Tax Provisions Expiring in 1991 and 1992* (JCS-2-91), February 28, 1991, at 12-13.

Thus, for example, a taxpayer that performs 50 percent or more of its research and development in the United States may automatically apportion at least 30 percent of its remaining research expense to U.S. source income. A taxpayer can choose to apportion to the geographic source where research and development is performed a percentage of research expense significantly greater than 30 percent if the taxpayer establishes that the higher percentage is warranted because the research and development is reasonably expected to have a very limited or long-delayed application outside that geographic source.

Alternatively, subject to certain limitations, a taxpayer may elect to apportion its research expense remaining after any allocation to meet legal requirements under one of two optional gross income methods. Under these optional methods, a taxpayer generally apportions its research expense on the basis of relative amounts of gross income from U.S. and foreign sources. If a taxpayer makes an automatic place-of-performance apportionment, the taxpayer may not use either optional gross income method.

The basic limitation on the use of the optional gross income methods is that the respective portions of a taxpayer's research expense apportioned to U.S. and foreign source income using these methods can not be less than 50 percent of the respective portions that would be apportioned to each income grouping using a combination of the sales and place-of-performance apportionment methods.

If this 50-percent limitation is satisfied with respect to both income groupings, the taxpayer may apportion the amount of its research expense that remains after allocation under the legal requirements test ratably on the basis of foreign and U.S. gross income. If the 50-percent limitation is not satisfied with respect to one of the income groupings, then the taxpayer must apportion to that income grouping 50 percent of the amount of its research expense which would have been apportioned to that income grouping under the sales and place-of-performance methods. A taxpayer electing an optional gross income method may be able then to reduce the amount of its research expense apportioned to foreign source income to as little as one-half of the amount that would be apportioned to foreign source income under the sales method.

For example, consider a taxpayer with $110 of U.S.-performed research expense and equal U.S. and foreign sales. Assume that $10 of the research expense is to meet U.S. legal requirements and is allocated to U.S. source income. Of the remaining $100, 30 percent ($30) is exclusively apportioned to U.S. source income under the automatic place-of-performance rule and the remaining $70 is divided evenly between U.S. and foreign source income, using the sales method. Thus, under this method $35 would be allocated to foreign source income and $75 would be allocated to U.S. source income. Under the optional gross income methods, the $35 of research expense allocated to foreign sources can be reduced as much as 50 percent, to $17.50. This can occur, for example, if the foreign sales were made by a foreign subsidiary that did not repatriate earnings to the U.S. corporation, and thus a disproportionately high fraction of the U.S. corporation's income is from U.S. sources.

The optional gross income methods apply to all of a taxpayer's gross income, not gross income on a product category basis.

Statutory rules—current law

In general.—Effective for a taxpayer's first two taxable years beginning after August 1, 1989, and on or before August 1, 1991, the treatment of research and development expenditures incurred to meet legal requirements generally is unchanged from the regulatory rule described above. As for the remainder of research expenses, 64 percent of U.S.-incurred R&D expenses are allocated to U.S. source income, 64 percent of foreign-incurred R&D expenses are allocated to foreign source income, and the remainder of R&D expenses are allocated and apportioned either on the basis of sales or gross income, but subject to the condition that if income-based apportionment is used, the amount apportioned to foreign source income can be no less than 30 percent of the amount that would have been apportioned to foreign source income had the sales method been used.

For example, assume that an unaffiliated U.S. taxpayer has $100 of U.S. research expenses and $100 of foreign research expenses, that 50 percent of relevant gross sales produce foreign source income, and that 10 percent of the taxpayer's gross income is from foreign sources. Under the statute, assuming there is no legal requirements allocation, $125.20 of the qualified research and experimental expenditures may be allocated and apportioned to U.S. source income. The statute allocates $64 to U.S. source income using the automatic place-of-performance allocation for U.S. research expenses, and $64 to foreign source income using the automatic place-of-performance allocation for foreign research expenses. Of the remaining $72 of qualified research and experimental expenditures, $61.20 may be apportioned to U.S. source income. A straight gross income apportionment of the $72 remainder would have resulted in apportioning $64.80 to U.S. source income, and $7.20 to foreign source income, while a gross sales apportionment would have resulted in apportioning $36 to U.S. source income and $36 to foreign source income. The gross sales limit provides that a minimum of 30 percent of $36, or $10.80, must be apportioned to foreign source income. Therefore, of the $72 of expenses remaining for apportionment after the automatic place-of-performance allocations, no more than $61.20 may be apportioned to U.S. source income.

Affiliated group and possession corporations.—As is already true for research expenses that would, but for section 864(f), be covered by the general expense allocation rules introduced in the 1986 Act (sec. 864(e)), the statute generally provides that allocation and apportionment of research expenses, like other expenses, is to be determined as if all members of the affiliated group (plus any section 936 companies (possession corporations) that would be eligible to consolidate absent statutory prohibition) were a single corporation. However, in the case of a section 936 company that has elected either the cost sharing or profit split method of computing its intangible property income (sec. 936(h)(5)(C)), its sales and gross income from products produced in whole or in part in a possession, and dividends paid by such company attributable to sales of such products, are not taken into account under the statute to the extent that the company is allowed a credit under section 936 with respect to gross income on those products that is intangible property income.

The statute provides the Treasury with the authority to prescribe such regulations as may be necessary to carry out the purposes of the one taxpayer rule and its exceptions regarding section 936 companies. In addition to providing the safeguards addressed in the regulations under the general one taxpayer rule of section 864(e), these regulations are to provide for the source of gross income and the allocation and apportionment of deductions to take into account the adjustment to group-allocable qualified research and experimental expenditures for research expenses treated as cost sharing amounts under section 936. In addition, these regulations may provide for an adjustment to group-allocable research expenditures to take into account certain bona fide cost sharing payments by foreign affiliates, where necessary and appropriate in light of the purposes of the one taxpayer rule. It is anticipated that in taking into account cost sharing amounts, the regulations will prevent any disproportionate reduction in the amount of research expenses allocated and apportioned to foreign source income.

Allocation for space, ocean, and Antarctica research expenses.—The statute sets forth a specific rule for research conducted in space, on or beneath the ocean, or in Antarctica. Research expenses incurred by U.S. persons for activities conducted in space, in Antarctica, or on or under water not within the jurisdiction (as recognized by the United States) of a foreign country, U.S. possession, or the United States, are allocated and apportioned in the same manner as if they were attributable to activities conducted in the United States. Similarly, research expenses for such activities incurred by non-U.S. persons are allocated and apportioned as if they were attributable to activities conducted outside the United States.

Income taxes

The United States taxes U.S. persons on their worldwide income, while U.S. States and their political subdivisions tend to impose tax on a more territorially limited basis, at least with respect to corporate taxpayers. Nevertheless, a State may include in its income tax base, even for a corporate taxpayer, income that for Federal purposes would be sourced foreign.[90] Therefore, Treasury regulations require that State and local income taxes be allocated to and apportioned between income from U.S. and domestic sources, on the principle that the deduction for State income taxes is definitely related to the gross income with respect to which those taxes are imposed (Treas. Reg. sec. 1.861-8(e)(6)).

General presumption

In order to determine the portion (if any) of a State's income tax that is allocated and apportioned to foreign source income, the regulations generally require that the allocation and apportionment be made by reference to the tax base (determined under State law) to which that State's tax rate is applied. The regulations embody a presumption that State income taxes are allocable to a class of gross income that includes foreign source income when the State tax base exceeds the amount of U.S. source taxable income determined under the Code (disregarding the deduction for State income taxes). Under the regulations, generally State tax on the State tax base *not* in excess of Federally computed U.S. source income generally may be allocated to U.S. source income.

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[90] For example, a State may include in its tax base dividends from foreign corporations which dividends would be foreign source income under Federal tax rules.

For example, assume that a taxpayer has $1,000,000 of Federal taxable income from its business operations (disregarding State income tax deductions), of which $200,000 is foreign source. Assume that on the basis of a three-factor formula taking into account all of the taxpayer's assets, a State with a 10 percent tax rate imposes its tax on $950,000 of that taxpayer's income, for a State tax liability of $95,000. Under the regulation, State tax is apportioned to foreign source income on the basis of the $150,000 *excess* of State taxable income ($950,000) over Federal U.S. source taxable income ($800,000). In this example, therefore, $15,000 of State tax (i.e., 10 percent of $150,000) is apportioned to foreign source income, and $80,000 of State tax is apportioned to U.S. source income (*see* Treas. Reg. sec. 1.861-8(g), Example 25).

As another example, assume that a State's apportionment formula does take into account foreign-source-income-producing operations of a taxpayer, but that the resulting State tax base is equal to or less than the taxpayer's U.S. source income as computed for Federal tax purposes under the Internal Revenue Code. The regulations suggest that in such a case, State income tax need not in general be allocated or apportioned to foreign source income.

Modification to the presumption

The general presumption described above is modified or otherwise affected under the regulations in cases where a particular State law prohibits taxation of foreign source income; where the taxable income of the taxpayer is split among several States, some of which have no income tax system; or where a State's law includes foreign source income in its apportionment formula base without a corresponding inclusion of foreign factors that would cause that foreign income to be apportioned out of the State income tax base.

As an example of the first modification, assume that a State uses an apportionment formula to determine the portion of a taxpayer's world-wide income which is to be taxed. Assume further that under State law all foreign source income, as determined by the Code, is exempt from State taxation and the State tax apportionment base, and State-law apportionment factors relating to foreign-source-income-producing operations are excluded from the State apportionment formula. In such a case the regulations indicate that none of that State's tax is allocated or apportioned to foreign source income (Treas. Reg. sec. 1.861-8(g), *Example 26*).

The regulation further provides for a refinement of the basic presumption described above when a taxpayer's income could be partly attributed to a State imposing no income tax. Assume for example that a taxpayer has operations in two States. One State imposes tax on a base of $600,000, determined by formulary apportionment. The other State has no income tax. Federal taxable income (disregarding the State income tax deduction) is $1,000,000, of which $200,000 is foreign source. Because U.S. source taxable income includes income from transactions related to both States, before determining that the State tax on the $600,000 is solely tax on a portion of the $800,000 of U.S. source income, and therefore not allocable or apportionable at all to its foreign source income, the taxpayer must under the regulations first make an estimate of the amount of taxable income that *could* hypothetically be attributed to activities in the non-taxing State, using any reasonable method the taxpayer chooses (e.g., the rules of the Uniform Division of Income for Tax Purposes Act). If the result of this estimate is that $200,000 or less of taxable income would reasonably be allocated to the non-taxing State, then the regulations suggest that none of the other State's tax need be allocated or apportioned to foreign source income. If the result is that more than $200,000 of taxable income would reasonably be allocated to the non-taxing State, then under the regulations a portion of the $600,000 is allocated and apportioned to foreign source income (*see* Treas. Reg. sec. 1.861-8(g), *Example 27*).

A third regulatory exception to the general presumption concerns the case where a U.S. corporation receives foreign source "portfolio" dividends from a controlled foreign corporation, or dividends from the controlled foreign corporation the majority of the stock of which is not held by the U.S. taxpayer. In particular, the exception applies where State law includes those dividends in the taxpayer's apportionment formula base without a corresponding inclusion of factors of the controlled foreign corporation in the apportionment formula. (Were such factors so included, the State tax on the dividends could be diluted or completely eliminated through operation of the formula.) Where the factors of the controlled foreign corporation are not included, the regulation provides that a portion of the State tax is considered directly related to the amount of the dividend times the State apportionment fraction.

Assume for example that a U.S. company has $100,000 of portfolio dividends subject to the above State law treatment in a State with a 10 percent income tax, and that the comparison of the company's in-State factors with its worldwide factors results in a State apportionment fraction of 50 percent. Under the regulation, $5,000 of the U.S. company's State tax (i.e., 10 percent of 50 percent of the dividend amount) is allocated entirely to its foreign source portfolio dividend (Treas. Reg. sec. 1.861-8(g), *Example 28*).

The regulations also permit taxpayers to elect to compare Federally computed U.S. source income with the State tax base using either a modified State tax base, or, under an elective safe harbor method of allocation and apportionment, a Federally computed tax base inflated by 10 percent. As an example of a modified State tax base, assume that in a particular instance a State computes a taxpayer's State tax base as an amount greater than the taxpayer's Federally computed U.S. source income, but that the excess is due to a difference in the rate of allowable depreciation or the amount of another deduction that allowable under both the State and Federal income tax systems. The regulations contemplate that, with the approval of the District Director, the State tax base may be reduced (for Federal expense allocation purposes) to reflect more accurately the income with respect to which the State income tax is imposed (Treas. Reg. sec. 1.861-8(e)(6)(ii)(C)(*2*) and (g), *Example 31*), which may result in reduction or elimination of any allocation or apportionment of State tax to foreign source income. By contrast, a taxpayer is not permitted to modify the State income tax base of a formulary apportionment State for this purpose by reconstructing State income under a principle of separate entities dealing at arm's length (Treas. Reg. sec. 1.861-8(g), *Example 32*).

Finally, the regulations provide two elective safe harbor methods of allocation and apportionment. Once made, these elections must be followed every year unless revoked with the consent of the IRS. Under the first such method, there may be direct allocations of State tax to foreign source portfolio dividends, but there is, in general, no further apportionment of State income tax between remaining U.S. and foreign source income if the State-law income tax base (after modifications to the presumed State tax base to account for States without income taxes, as described above) does not exceed 110 percent of the U.S. source Federal tax base. If the State-law income tax base *does* exceed 110 percent of the U.S. source Federal tax base, then under this safe harbor State tax is apportioned to U.S. source income in the proportion that 110 percent of the U.S. source Federal tax base (rather than 100 percent, as under the general presumption) bears to the entire State tax base (Treas. Reg. sec. 1.861-8(e)(6)(ii)(D)(*2*) and (g), *Example 33(ii)*).

For example, assume that a taxpayer has Federal taxable income from its business operations (disregarding State income tax deductions) of $1,000,000 of which $200,000 is foreign source. Assume that on the basis of a three-factor formula taking into account all of the taxpayer's assets, a State with a 10 percent tax rate imposes its tax on $950,000 of that taxpayer's income, for a State tax liability of $95,000. Under the first safe harbor, assuming there are no no-tax States involved or foreign portfolio dividends, the State tax base could be compared with 110 percent of U.S. source income, or $880,000. Since the State tax base exceeds $880,000, the State tax attributable to that amount—$88,000—is apportioned to U.S. source income, and the remaining $7,000 of State tax is apportioned to foreign source income.

Under the second safe harbor method, the State-law income tax base is compared to 100 percent of the U.S source Federal tax base (again after making necessary modifications for no-tax States). After direct allocations of State tax to foreign source portfolio dividends and to other foreign source income taxed by any State that uses the worldwide unitary business theory of taxation, if necessary, an amount of State tax is apportioned to U.S. source income in the proportion that U.S. source Federal taxable income bears to the State income tax base. A further amount of State tax is then apportioned to U.S. source income in the proportion that U.S. source Federal taxable income bears to total *Federal* taxable income (Treas. Reg. sec. 1.861-8(e)(6)(ii)(D)(*3*) and (g), *Example 33(iii)*).

Using the facts of the above example, there is an initial apportionment of $80,000 of State tax to U.S. source income. The remaining $15,000 of State tax is apportioned based on the ratios of U.S. and foreign source income to total *Federal* income. Thus, an additional $12,000 of tax is apportioned to U.S. source income—$15,000 times the ratio of $800,000 to $1,000,000, or 80 percent—and the remaining $3,000 of tax is apportioned to foreign source income.

Charitable contributions

Current Treasury regulations, in effect since 1977, provide that deductions which generally are considered as not definitely related to any gross income, and therefore are ratably apportioned on the basis of gross income, include the deduction for charitable contributions (Treas. Reg. sec. 1.861-8(e)(9)(iv)).[91] Depending on the circumstances, a given payment to a particular charity may qualify for deductibility either as charitable contributions (sec. 170) or as ordinary and necessary business expenses (sec. 162), but not both (sec. 162(b)). A charitable contribution may be distinguished from an ordinary and necessary business expense on the basis of the nexus (or lack thereof) between the contribution and income of the business. That is, contributions that bear a direct relationship to the taxpayer's trade or business and that are made with a reasonable expectation of financial return commensurate with the amount of the transfer may be deductible as trade or business expenses (or treated as capital expenditures) rather than as charitable deductions (Treas. Reg. sec. 170A-1(c)(5)). Thus, payments that are deductible under section 170 of necessity bear an attenuated relationship to income of the taxpayer, which may be consistent with the current regulatory approach that charitable contributions are not definitely related to any gross income, class of gross income, or grouping (statutory or residual) of gross income.

Regulations proposed in March 1991 would alter the general rule, effective for taxable years beginning after March 12, 1991, in cases where the use of the contribution is restricted either to purely domestic or purely foreign uses.[92] Under the proposal, a charitable contribution deduction generally will be allocated solely to U.S. source gross income if the taxpayer both designates the contribution for use solely in the United States and reasonably believes that the contribution will be so used. Conversely, a charitable contribution deduction will be allocated solely to foreign source gross income if the taxpayer knows or has reason to know that the contribution will be used solely outside the United States or that the contribution may necessarily be used only outside the United States.

Thus, under the proposal, a charitable contribution by a U.S. company with headquarters in a U.S. city to the local symphony orchestra solely for local use may be allocated solely to the company's U.S. source income, while under the general rule of the current regulations, the deduction would have been apportioned between U.S. and foreign source gross income on a pro rata basis. On the other hand, a charitable contribution by the U.S. company purely to benefit foreign disaster victims would under the proposal reduce only foreign source taxable income, while under the general rule of the current regulations, a portion of the deduction would have been apportioned to the company's U.S. source gross income.

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[91] Further, in Notice 89-91, the Treasury announced that the one taxpayer rule will apply to all expenses and deductions that are not definitely related to a particular class of income. "Thus, for example, the deduction for charitable contributions allowed by section 170 would be subject to allocation and apportionment under sec. 1.861-14T. The deduction for charitable contributions is considered to relate to all the members of an affiliated group and not to any subset thereof." 1989-2 C.B. 408, 409. *Accord,* Proposed Treas. Reg. sec. 1.861(e)(12)(v), INTL-116-90, 1991-14 I.R.B. 35.

[92] Proposed Treas. Reg. sec. 1.861-8(e)(12), INTL-116-90, 1991-14 I.R.B. 35.

Other deductions

The regulations expressly treat several other types of deductions as well, including stewardship expenses attributable to dividends received; legal and accounting fees and expenses; and losses on the sale, exchange, or other disposition of property.[93]

Stewardship expenses

Stewardship expenses are those undertaken for the taxpayer's benefit as an investor in a related corporation, acting in an oversight capacity. For example, assume that the staff of a foreign subsidiary corporation of a U.S. corporation, after analyzing the subsidiary's borrowing needs and potential borrowing sources, submits a report of its findings with a plan of borrowing to the U.S. parent. If the staff of the parent corporation reviews the report to determine whether to advise the subsidiary to reconsider the plan, then this review is considered under the regulation to be a stewardship function. In contrast, if the staff of the parent corporation were to provide services to the subsidiary, for which unrelated parties acting at arm's length would pay a fee, then the expenses of providing those services are considered definitely related to the income of the parent from the fee. The distinction is one between services obtained by the subsidiary from the parent (rather than from its own staff or third parties) for the subsidiary's benefit, and oversight or stewardship functions the parent performs for its own benefit and that may duplicate the functions that the subsidiary performs for itself or through its agents.

The regulation provides that the deductions resulting from stewardship or overseeing functions are incurred as a result of, or incident to, the ownership of the related corporation, and are considered definitely related and allocable to dividends received or to be received from the related corporation (Treas. Reg. sec. 1.861-8(e)(4)). Methods of apportionment between the statutory and residual groupings which the regulations indicate could possibly be utilized with respect stewardship expenses include comparisons of time spent by employees (weighted to take into account differences in compensation), or comparisons of each related corporation's gross receipts, gross income, or unit sales volume, assuming that stewardship activities are not substantially disproportionate to such factors.

Legal and accounting expenses

The regulation provides that such services must be assigned to the class of income to which the particular legal or accounting service relates. For example, accounting fees for the preparation of a study of the costs involved in manufacturing a specific product ordinarily are definitely related to the class of gross income derived from (or which could reasonably have been expected to be derived from) that specific product (Treas. Reg. sec. 1.861-8(e)(5)).

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[93] Certain personal expense items are also dealt with in the allocation and apportionment regulations (Treas. Reg. sec. 1.861-8(e)(9)).

Losses on sale of an asset

The regulations provide that the deduction allowed for loss recognized on the sale, exchange, or other disposition of a capital asset or section 1231 property is considered definitely related and allocable to the class of gross income to which the asset ordinarily gives rise in the hands of the taxpayer (Treas. Reg. sec. 1.861-8(e)(7)). However, as described in D.1., above, the sourcing of gain from the disposition of property can differ from the sourcing of the ordinary income generated by the property. In some cases, for example, gain from the disposition of property is sourced on the basis of the residence of the taxpayer (sec. 865), while income from property may be sourced on the basis of the location of the property, of the use of the property, or the residence of the payor of the income.

For example, by statute, interest on a loan extended by a U.S. resident to a foreign person generally is treated as foreign source gross income. The general statutory treatment of gains from dispositions of the loan, or from foreign currency gain upon repayment of the loan (assuming that the loan is a section 988 transaction) realized by the U.S. resident, on the other hand, suggests that the gain generally is treated as U.S. source income. There is no particular statutory rule addressing the source of a loss on disposition or write-off of the loan.[94] The Treasury Department has announced that regulations to be issued under section 865 will provide that, for banks, a loss derived from the disposition or specific charge-off of a loan will in general be apportioned between U.S. and foreign source gross income on the basis of the relative values of the bank's U.S. and foreign assets (Notice 89-58, 1989-1 C.B. 699). Thus, if the particular loan that goes bad generated foreign source interest income, a portion of the loss on its disposition or charge-off may be apportioned to U.S. source income based on the composition of the rest of the bank's loan portfolio.

One-taxpayer rule—deductions other than interest

Like interest expense, expenses other than interest which are not directly allocable or apportioned to any specific income producing activity are allocated and apportioned as if all members of the affiliated group were a single corporation (sec. 864(e)(6)). Regulations provide that this one-taxpayer rule may apply to research expenses, stewardship expenses, legal and accounting expenses, and other supportive expenses (such as overhead, general and administrative, supervisory expenses, advertising, marketing, and other sales expenses), as well as all expenses and deductions that are not definitely related to a particular class of income (such as charitable deductions) (Treas. Reg. sec. 1.861-14T(e)(1)(i); Notice 89-91, 1989-2 C.B. 408).

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[94] The legislative history of the 1986 Act stated that

> regulations are to be prescribed by the Secretary carrying out the purposes of the Act's source rule provisions [which added section 865 to the Code], including the application of the provisions to losses from sales of personal property and to income derived from trading in futures contracts, forward contracts, options contracts, and similar instruments. It is anticipated that regulations will provide that losses from sales of personal property generally will be allocated consistently with the source of income that gains would generate but that variations of this principle may be necessary.

Staff of the Joint Committee on Taxation, 100th Cong., 1st Sess., *General Explanation of the Tax Reform Act of 1986* at 922-23 (1987).

As in the case of interest, the affiliated group in this context generally is defined by reference to the rules for determining whether corporations are eligible to file consolidated returns. Also as in the case of interest, the affiliated group for expense allocation purposes includes any corporation which has elected the application of the possession tax credit for the taxable year, if the corporation would be excluded solely for this reason from the affiliated group as defined for consolidation purposes.

There are a number of differences, however, in the one-taxpayer rule as applied to interest as opposed to non-interest expenses. For example, financial institutions are included in the same affiliated group as other types of companies for purposes of allocating expenses other than interest, while for interest allocation purposes, certain financial institutions may be treated as a separate affiliated group as explained above (Treas. Reg. sec. 1.861-14T(d)(3)). In addition, the one-taxpayer regulations for purposes of allocating deductions other than interest do not contain rules, as do the interest-allocation regulations providing that certain corporations not within the general definition of an affiliated group, such as any includible corporation if 80 percent of the vote or value of its stock is owned directly or indirectly by an includible corporation or by members of an affiliated group, will be considered to constitute affiliated corporations.

The rules for allocating expenses other than interest also provide for the possibility that, depending on facts and circumstances, certain expenses other than interest may relate to fewer than all members of the affiliated group, in which case only the affiliated group members to which the expenses do relate are treated as a single taxpayer (Treas. Reg. sec. 1.861-14T(c)(2) and (e)(1)).

E. Transfer Pricing

1. Overview

In the case of a multinational enterprise under common control that includes both a U.S. and a foreign corporation, the United States may tax all of the income of the U.S. corporation, but only so much of the income of the foreign corporation as satisfies the relevant rules for determining a U.S. nexus.[95] The determination of the amount of income that properly is the income of the U.S. member of a multinational enterprise, and the amount that properly is the income of a foreign member of the same multinational enterprise thus is critical to determining the amount the United States may tax as well as the amount other countries may tax.

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[95] In different circumstances, the relevant nexus rules may depend on whether the income has its source in the United States, whether the income is effectively connected with a U.S. trade or business, or whether the income is connected with a business that operates through a permanent establishment located in the United States. In certain situations, special rules treat undistributed income of a foreign corporation owned by U.S. shareholders as the current income of the U.S. shareholders. (See discussion of "U.S. Taxation of Income Earned Through Foreign Corporations," in II.B., above.)

Due to the variance in tax rates (and tax systems) among countries, and possibly for other reasons, a multinational enterprise may have a strong incentive to shift income, deductions, or tax credits among commonly controlled entities to the entity in the most favorable tax jurisdiction in order to arrive at a reduced overall tax burden.[96] Such a shifting of items between commonly controlled entities might be accomplished by setting artificial transfer prices for transactions between group members.

As a simple illustration of how transfer pricing might reduce taxes, assume a U.S. corporation has a wholly owned foreign subsidiary. The U.S. corporation manufactures a product domestically which it then sells to the foreign subsidiary. The foreign subsidiary, in turn, sells the product to unrelated third parties. Due to the U.S. parent's control of its subsidiary, the price which is charged by the parent to the subsidiary could theoretically be set independently of ordinary market forces. If the foreign subsidiary is established in a jurisdiction that would subject its profits from the sale of the product to an effective rate of tax lower than the effective U.S. tax rate (and assuming that the income earned by the foreign subsidiary would not be currently taxed by the United States either directly or via an income inclusion to the U.S. parent company), then the U.S. corporation may be inclined to undercharge the foreign subsidiary for the product. By doing so, a portion of the combined profits of the group from the manufacture and sale of the product would be shifted out of a high-tax jurisdiction (the United States) and into a lower-tax jurisdiction (the foreign corporation's home country).[97] The ultimate result of this process would be a reduced worldwide tax liability of the multinational enterprise.

The case of *Bausch & Lomb, Inc. v. Commissioner,*[98] provides an example of a U.S. manufacturer that possesses an effective monopoly over sophisticated manufacturing technology, and that technology is used to produce a product marketed solely through the services and marketing intangibles of the U.S. manufacturer. The manufacturer places the techology in the hands of a foreign subsidiary subject to a complete source-country income tax exemption, and does not legally guarantee the subsidiary the price at which it would buy, or whether it would buy, all of its product. In *Bausch & Lomb* it was held possible for the subsidiary to retain in effect one-half of the profit to be generated by sales (at the price charged by the subsidiary) of the product.

The Code authorizes the Secretary of the Treasury or his delegate to redetermine the income that is properly the income of an entity subject to U.S. taxing jurisdiction, when it appears that an improper shifting of income between that entity and a commonly controlled entity in another country has occurred (sec. 482). This authority is not limited to reallocations of income between different taxing jurisdictions; it permits reallocations in any common control situation including reallocations between two U.S. entities. However, it has significant application to multinational enterprises due to the incentives for taxpayers to shift income in such situations to obtain the benefits of significantly different effective tax rates or for other reasons.

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[96] The relative statutory tax rates of different jurisdictions do not necessarily reflect their relative effective tax rates. Thus, factors other than relative statutory tax rates may affect a multinational's incentive to place income or deductions in a particular tax jurisdiction. Factors that might reduce a high statutory rate to a low effective tax rate might include, for example, the ability to avoid a high statutory tax rate by timing rules permitting significant deferral; or by tax planning permitted under a country's combined internal and treaty tax rules (including for example, routing income to low-tax third country affiliates so that it is not taxed in the home country). The effectiveness of tax administration in a country may also be a factor. Other factors that can affect the level of tax borne by income reported in a particular jurisdiction include the availability of double tax relief (e.g., a foreign tax credit), and liability for customs or other duties.

[97] By contrast, U.S. companies owning foreign subsidiaries that are located in countries with effective tax rates in excess of the U.S. rates may have an incentive to overcharge for sales from the United States in order to shift profits, and the resulting tax, into the United States.

[98] No. 89–4156 (2d Cir. May 14, 1991), *aff'g* 92 T.C. 525 (1989).

Determinations under section 482 that allocate additional income to the United States might theoretically subject a taxpayer to double taxation, if both the United States and another country imposed tax on the same income and the other country did not agree that the income should be reallocated to the United States. Tax treaties generally provide mechanisms to attempt to resolve such disputes in a manner that may avoid double taxation if both countries agree. Such mechanisms generally include the designation of a "competent authority" by each country, to act as that country's representative in the negotiation attempting to resolve such disputes. Such competent authority procedures do not guarantee that double tax may not be imposed in a particular case. Rather, the success of the procedure in each case depends on the outcome of the negotiations.

2. Code section 482

Code section 482 grants the Secretary of the Treasury broad authority to allocate income, deductions, credits or allowances between any commonly controlled organizations, trades, or business in order to prevent evasion of taxes or clearly to reflect income.[99]

The statute generally does not prescribe any specific reallocation rules that must be followed, other than establishing the general standards of preventing tax evasion and clearly reflecting income. Treasury regulations adopt the concept of the arm's length standard as the method of determining whether reallocations are appropriate. Thus, the regulations attempt to identify the respective amounts of taxable income of the related parties that would have resulted if the parties had been uncontrolled parties dealing at arm's length (Treas. Reg. sec. 1.482-1(b)(1)).

The 1986 Act amended section 482 to require that in the case of certain transfers or licenses of intangible property, the income with respect to such transfer or license shall be "commensurate with the income attributable to the intangible."[100] The legislative history of this provision stated that the relationship between related parties is different from the relationship between unrelated parties and that comparable unrelated party transactions often cannot be found, particularly in the case of intangibles. The legislative history stated that the Treasury Department should conduct a comprehensive study of the intercompany pricing rules.[101]

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[99] Section 482 states in part: "In any case of two or more organizations, trades, or businesses (whether or not incorporated, whether or not organized in the United States, and whether or not affiliated) owned or controlled directly or indirectly by the same interests, the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among such organizations, trades, or businesses, if he determines that such distribution, apportionment, or allocation is necessary in order to prevent evasion of taxes or clearly to reflect the income of any of such organizations, trades, or businesses."

[100] P.L. 99-514, section 1231(e)(1).

Treasury regulations dealing with the 1986 Act provision have not yet been issued, but the Treasury Department has released a discussion draft study of intercompany pricing issues (the so-called Treasury "White Paper") discussing the "commensurate with income" standard for intangibles as well as other aspects of section 482. The White Paper generally re-endorsed the concept of the arm's length standard for all types of transfers, including transfers or licenses of intangibles.[102]

The rules of section 482 apply whenever necessary to prevent evasion of taxes or to clearly reflect the income of controlled taxpayers. The IRS is not restricted in its application of section 482 to cases of improper accounting, to fraudulent, or sham transactions, or to cases of devices designed to reduce or avoid tax by shifting or distorting income, deductions, credits, or allowances. Rather, its authority to determine true taxable income by utilizing section 482 extends to any case in which, either by inadvertence or design, a controlled taxpayer's taxable income is other than it would have been had the taxpayer been conducting its affairs on an arm's length basis with an uncontrolled person (Treas. Reg. sec. 1.482-1(c)).

According to an important line of judicial decisions, however, the IRS may not always be empowered under present law to reallocate income among related persons under section 482 on the grounds that the transaction that they engaged in was not one that unrelated parties, acting freely, would have entered into. The IRS may be restricted if certain local laws or regulations apply. In *Commissioner v. First Security Bank of Utah*,[103] the Supreme Court held that if a national bank were prohibited by Federal banking law from receiving a percentage of credit life insurance premiums as sales commissions for its activity of arranging credit life insurance for its borrowers, then the commission that ordinarily would be paid to the person who originated the business could not be included in the income of the bank under section 482. A recent Tax Court decision, *Procter and Gamble v. Commissioner*,[104] has held that the *First Security Bank* analysis is equally applicable whether considering the effect of foreign law or domestic law, because, according to the Tax Court, where the controlling interest has not utilized its power to shift income, but instead the income has been shifted by operation of the foreign law, a section 482 allocation is inappropriate. The operation of foreign law in Procter and Gamble's case resulted in a transaction on terms that unrelated parties would not accept. Nevertheless, according to the Tax Court, section 482 does not apply where the taxpayer's legitimate business purposes subject it to legal restraints effectively blocking the receipt of income.

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[101] H.R. Rep. No. 99-426, 99th Cong., 1st Sess. 423–25 (1985).

[102] U.S. Treasury Department (Office of International Tax Counsel and Office of Tax Analysis) and Internal Revenue Service (Office of Assistant Commissioner (International) and Office of Associate Chief Counsel (International)), *A Study of Intercompany Pricing*, Discussion Draft, October 18, 1988 (hereinafter "White Paper").

[103] 405 U.S. 394 (1972).

[104] 95 T.C. 323 (1990). In *Procter and Gamble*, the court found that Spanish law prohibited a Spanish company from paying any royalty to a Swiss related company. The Swiss company licensed the Spanish company to use intangible property which the Swiss company had itself obtained the permission to use and license by paying a royalty to its U.S. parent. The royalty from the Swiss company to the U.S. parent was measured by, among other things, the use that the Spanish company made of the rights licensed to it by the Swiss company. Spanish law gave officials authority to restrict or permit payments by the Spanish company to foreign related companies. Such a restriction on related person payments was imposed on the Spanish company. For purposes of the decision, the court did not find it significant that, had the Swiss company been unrelated to the Spanish company, payment of the royalty would not have been illegal. The IRS has appealed the *Procter and Gamble* decision.

3. Regulations under section 482

In general

In evaluating whether income must be reallocated between related parties to prevent the evasion of tax or clearly to reflect income, the Treasury regulations adopt the concept of the arm's length standard. Thus, the regulations attempt to determine what an arm's length charge between unrelated parties would have been and to adjust the income of related parties as necessary to reflect such a charge. The regulations look principally to comparable transactions between unrelated parties where they exist.

The present regulations contain rules addressing several kinds of transactions. Although the goal in each case is to identify the arm's length charge, the regulations provide somewhat different formulations of the approaches to be used for each of five specific types of transactions: loans and advances, the performance of services, the use of tangible property, the sale of tangible property, and the licensing or sale of intangible property. In each of these types of cases, the regulations attempt to prescribe methods to identify the relevant comparable unrelated party transaction and to provide adjustments for differences between such transactions and the related party transactions. In some instances the regulations also provide safe harbors.

Loans or advances

The regulations generally provide for reallocations if there are loans or advances between controlled parties and no interest has been charged or interest has been charged at a rate not equal to an arm's length rate, determined taking account of all the facts and circumstances (Treas. Reg. sec. 1.482-2(a)).

Safe harbor rates are provided if the lender is not regularly engaged in the business of making loans or advances of the same general type to unrelated parties. The regulations provide a specified safe-harbor range between a minimum and maximum rate, based on the applicable Federal rate in effect when the loan or advance is made. In the safe-harbor situations, the taxpayer can establish a more appropriate rate based on all the facts and circumstances under the arm's length standard. If the actual rate charged is less than the safe-harbor minimum rate, however, the taxpayer may not establish that an arm's length rate would be even less than the amount actually charged. Similarly, if the rate actually charged is greater than the safe-harbor maximum rate, the taxpayer may not establish that an arm's length rate is even greater than the amount charged (Treas. Reg. sec. 1.482-2(a)(2)(iii)).[105]

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[105] Different safe harbors are provided under earlier regulations for transactions before May 9, 1986 or after that date pursuant to certain binding contracts.

A special rule applies if the loan represents the proceeds of a loan that the lender acquired at the situs of the borrower from an unrelated party. In that case, the arm's length rate is presumed to be the rate paid to the unrelated party increased by any other costs of the lender, unless the taxpayer can show that a different rate is more appropriate (Treas. Reg. sec. 1.482-2(a)(2)(ii)).

The regulations generally require interest to be charged for the entire period from the day indebtedness arises to the day it is satisfied. However, interest-free periods are permitted in certain circumstances. As one example, interest is not required to be charged on an intercompany trade receivable in the ordinary course of business until the first day of the third calendar month following the month in which the intercompany trade receivable arises (Treas. Reg. sec. 1.482-2(a)(1)(iii)).

These regulations apply to all loans or advances including indebtedness arising in the ordinary course of business out of sales, leases, or the rendition of services by or between members of the group. They do not apply to loans or advances that are properly characterized as equity.

Services

Related parties may perform services for one another either in connection with the transfer of property or otherwise. The regulations provide rules for determining the arm's length charge for services when no property transfer is involved, including rules that permit the use of a cost-recoupment measurement (without profit to the service provider) in certain circumstances (where services are not an integral part of the business activity of either the party rendering or receiving the services) and safe harbors identifying those circumstances (Treas. Reg. sec. 1.482-2(b)). However, where services are provided in connection with the transfer of property, the regulations require the amount of any allocation with respect to the transfer to be made under the rules that apply to that type of property transfer, so that no separate allocation to services is made (Treas. Reg. sec. 1.482-2(b)(8)).

Use of tangible property

The regulations generally provide for reallocations if tangible property is leased to a controlled party and no rent is charged or rent has been charged at a rate not equal to an arm's length rental, determined taking account of all the facts and circumstances. The regulations describe factors to be taken into account and prescribe rules permitting the use of certain safe harbors where neither the owner nor the user of the leased property is engaged in the trade or business of renting property (Treas. Reg. sec. 1.482-2(c)).

Tangible property transfers

In general.—In the case of transfers of tangible property, the regulations prescribe three methods to determine an arm's length price and provide an order of priority as to which method must be used if possible (Treas. Reg. sec. 1.482-2(e)). The three methods, in order of priority, are: (1) the comparable uncontrolled price method, (2) the resale price method, and (3) the cost plus method.

Each of these methods attempts to determine an arm's length price by looking to "comparable" unrelated party transactions. The nature of the unrelated party transactions and the data required differs under each method. If none of the three prescribed methods is applicable because no sufficiently comparable arm's length situations can be found, the regulations permit the use of another "appropriate" method. The various methods that have been utilized under this catch-all are commonly referred to as "fourth" methods. However, the regulations provide no specific guidance with respect to such other methods.

Comparable uncontrolled price ("CUP") method.—The comparable uncontrolled price method determines an arm's length price based on the actual prices charged in comparable sales between unrelated parties (Treas. Reg. sec. 1.482-2(e)(2)). For example, if a parent corporation sells property to its controlled subsidiary corporation, and if identical property is sold between unrelated parties under identical conditions, the price actually charged between the unrelated parties would be the comparable uncontrolled price and would be the arm's length price for the sale between the controlled corporations. This method must be used if comparable sales between unrelated parties exist. Sales generally are considered comparable to the sales at issue if substantially the same products are sold under substantially the same conditions.

Resale price method.—If the comparable uncontrolled price method is not available because of a lack of qualifying uncontrolled sales, the regulations mandate the use of the resale price method if the requirements of that method can be met (Treas. Reg. sec. 1.482-2(e)(3)). The resale price method is typically used for sales to a controlled distributor or "reseller." This method determines an arm's length price based on the resale profit margin realized by distributors that are not related to their suppliers. In order to provide useful profit margin data, these unrelated distributors must perform distribution activities that are comparable to those performed by the controlled distributor.

Cost plus method.—The regulations require use of the cost plus method if neither of the two prior methods is available and if the requirements for use of the cost plus method can be met (Treas. Reg. sec. 1.482-2(e)(4)). The cost plus method determines the arm's length price of property in a sale to a controlled purchaser by looking to the costs and markups of sellers engaged in selling comparable products to unrelated parties. The cost plus method then applies the markup of such unrelated sellers to the costs of the seller involved in the sale to a controlled party. The cost plus method thus requires a determination of the commonly controlled seller's cost of producing the property as well as a determination of the appropriate unrelated party markup.

So-called "fourth methods".—The regulations provide that if the standards for applying one of the three specified methods are met, that method must be used unless the taxpayer can establish that, considering all the facts and circumstances, some other method is clearly more appropriate. Where none of the three prescribed methods reasonably can be applied, another method can be used, including variations on the prescribed methods (Treas. Reg. sec. 1.482-2(e)(1)(iii)).

Use and transfer of intangibles

In general.—Intangibles may be transferred, or permitted to be used, between related parties in connection with the transfer of tangible property or otherwise. In the case of transfers or licenses of intangibles the income of the transferor with respect to such transfers or licenses must be commensurate with the income attributable to the intangible.[106] Although regulations have not yet been issued, the Treasury Department White Paper sets forth preliminary views and recommendations regarding the "commensurate with income" standard.[107] The White Paper concludes that application of the commensurate with income standard requires the determination of the income from a transferred intangible, and a functional analysis of the economic activities performed and the economic costs and risks borne by the related parties in exploiting the intangible in order to allocate income on the basis of the relative economic contributions of the related parties.[108] Moreover, this standard requires that intangible income be redetermined and reallocated periodically to reflect substantial changes in intangible income, or in the economic functions performed, and economic costs and risks borne, by the related persons. It applies to all types of intangible property transfers, not just to transfers of so-called high profit intangibles.[109]

The rate of return method in the White Paper.—According to the Treasury, the primary administrative difficulty relating to transfers of intangible property is the failure of the regulations to specify a so-called fourth method of income allocation for situations in which comparable transactions do not exist.[110] A methodology is proposed in the White Paper for allocating income which draws upon various methods that have been used on an ad hoc basis by the IRS, taxpayers, and the Courts. The Treasury Department has suggested that under certain circumstances, rate of return ratio methods may be used not only as a check on reasonableness of other methods, but to actually determine and set transfer prices. As discussed in the White Paper, the IRS would apply return ratio methods for the pricing of intangibles where no exact or inexact comparable exists. This method, known as the Basic Arm's Length Return Method (BALRM), may only be applied in situations where only one of the related parties has intangible assets without exact or inexact comparables. Furthermore, this method may only be applied after performing "functional analysis" to identify different components of the firm's business, assigning rates of return to each line of business, and subsequently computing the rate of return of the intangibles as the residual from the total. Since comparables are relatively rare for intangibles, the suggested application of the BALRM method would be applied in a significant portion of transfer pricing cases.[111]

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[106] The legislative history of the commensurate with income language, added to section 482 in 1986, expresses a concern that the prior law section 482 provisions may not have operated to assure adequate allocations to the transferor, particularly in cases where a U.S. entity creates manufacturing or other intangibles and transfers them to a controlled affiliate (for example, a controlled manufacturer) in a low effective tax-rate jurisdiction. The legislative history generally indicates that due to concerns about the lack of actual comparables, industry norms for licenses or transfers of intangibles that are transferred to unrelated parties may not be used as safe harbors for transfer prices of intangibles that have not in fact been transferred to an unrelated party, and that consideration must be given to the actual profit experience realized as a consequence of the related party transfer. H.R. Rep. No. 99-426, 99th Cong., 1st Sess. 423-425 (1985).

[107] White Paper, n. 102, *supra*.

[108] According to the Treasury Department, this is in accordance with what unrelated persons would do and is, therefore, consistent with the arms-length principle. White Paper at 55.

[109] White Paper at 54-55.

[110] *Id.* at 2.

4. Administrative procedure

In general

Despite the regulatory detail, what does and does not constitute an arm's-length arrangement remains fundamentally a question of fact, and is, of necessity, based in part on information available only from the taxpayer. Moreover, crucial data on comparables may amount to trade secrets of the taxpayer's competitors, and thus may be difficult to obtain, or if obtained, to use in the dispute resolution process. The Treasury and IRS, in their 1988 white paper on intercompany pricing, reported on tax administration difficulties in determining arm's-length prices: [112]

> A significant threshold problem in the examination of section 482 cases has been IRS access to relevant information to make pricing determinations. In some cases, relevant information is not furnished by the taxpayer to the examining agent. In other cases, long delays are experienced by agents in receiving information, in most cases without explanation for the delays. In many cases, delays in responding to [International Examiner] requests for information exceed one year. Because of the emphasis upon timely closing of large cases in the recent past, section 482 cases have been closed without receiving necessary information or without the opportunity for agents to follow up on information that has been provided.

The difficulty of resolving such cases is exemplified by the recent case of *Sundstrand Corp. v. Commissioner*.[113] The record in that case disclosed that the taxpayer "from the beginning hampered respondent's attempts to determine the true taxable income of the related parties," thereby putting the IRS "at an extreme disadvantage." [114] Moreover, the court, like the IRS, was unable to accept the taxpayer's asserted transfer prices. Nevertheless (or perhaps because of this), the taxpayer was able to convince the court to reject the IRS reallocation of income on the grounds that IRS had acted arbitrarily, capriciously, and unreasonably in exercising its discretion to reallocate income under section 482. The court found it necessary to construct an appropriate arm's length transfer price on its own from the raw data provided by the parties.

Even assuming that the taxpayer and the IRS can work cooperatively, the legal issues involved are highly imprecise. Where a U.S. corporation sets up a manufacturing operation in a foreign subsidiary, for example, large amounts of tax liability may turn on whether the foreign subsidiary is or is not perceived to be legally at risk as to the volume of product it will be able to sell or the price at which it can be sold, as in the *Bausch & Lomb* case, described above. The question of which party bears the risk, in turn, is obscured by the very ownership of the foreign corporation by the U.S. corporation, resulting in what some may argue is a standard of quite elusive comprehensibility or enforceability.

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[111] *Id.*, Chapter 11.

[112] *Id.* at 13-15 (references omitted).

[113] 96 T.C. No. 12 (Feb. 19, 1991).

[114] *Id.* at 211 (typescript op.).

Advance determination process

In order to improve the administrative process for ensuring that taxpayers have used appropriate transfer prices, the IRS has recently proposed a method for granting advance determination rulings on international transfer pricing.[115] The goal of this proposal is to avoid time consuming and costly disputes and possible litigation over transfer pricing issues by having the IRS and taxpayers prospectively agree on the transfer pricing methodologies to be applied to an apportionment or allocation of income, deductions, credits, or allowances. Under the request procedure for an advance pricing agreement, the taxpayer will propose a transfer pricing methodology and provide the IRS with data showing that it will produce arm's length results between the taxpayer and specified affiliates with respect to specified intercompany transactions.[116] The IRS will evaluate the request by analyzing the submitted data and any other relevant information. After discussion, if the taxpayer's proposal is acceptable, the parties will execute an advance pricing agreement covering the proposed transfer pricing methodology.[117]

An advance pricing agreement is binding on the taxpayer and the IRS. If the taxpayer complies with the terms and conditions of the agreement, the IRS will regard the results of applying the transfer pricing methodology as satisfying the arm's length standard and generally will not contest the application of that methodology to the subject matter of the agreement.[118]

F. Foreign Currency Exchange Rate Gains and Losses

1. Overview

When a U.S. taxpayer uses foreign currency, gain or loss (referred to as "exchange gain or loss") may arise from fluctuations in the value of the foreign currency relative to the U.S. dollar. Gain or loss results because foreign currency, unlike the U.S. dollar, is treated as property for Federal income tax purposes.

The principal issues presented by foreign currency transactions relate to the timing of recognition, the character (capital or ordinary), and the geographic source or allocation (domestic or foreign) of exchange gains or losses. Another area of concern is the treatment of a U.S. taxpayer that operates abroad through a branch or subsidiary corporation that keeps its books and records in a foreign currency; here, the issues relate to the method used to translate results recorded in a foreign currency into U.S. dollars.

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[115] Rev. Proc. 91-22, 1991-11 I.R.B. 11.

[116] The taxpayer will also propose an initial duration for the advance pricing agreement.

[117] The methodology generally must be in accordance with section 482 principles and must be consistent with the arm's length standard.

[118] If the IRS finds that (a) the taxpayer has not complied in good faith with the terms and conditions of the agreement, (b) the taxpayer made material misrepresentations in the agreement, (c) the taxpayer provided materially incorrect data and computations, (d) the critical assumptions underlying the agreement are no longer valid, or (e) the taxpayer has not consistently applied the transfer pricing methodology and the assumptions critical to the agreement, it may revoke the agreement.

The Code sets forth a comprehensive set of rules for the treatment of foreign currency denominated transactions. The tax treatment of a foreign currency denominated transaction turns on the identity of the taxpayer's functional currency. Exchange gain or loss is recognized on a transaction-by-transaction basis only in the case of transactions involving certain financial assets or liabilities (referred to as "section 988 transactions") that are denominated in a nonfunctional currency. In the case of section 988 transactions, exchange gain or loss generally is treated as ordinary income or loss.

A uniform set of criteria is provided for determining the currency in which the results of a foreign operation should be recorded. Business entities using a functional currency other than the U.S. dollar generally are required to use a profit and loss translation method. Exchange gain or loss on a remittance from a branch is treated as ordinary income or loss, and sourced or allocated by reference to the income giving rise to post-1986 accumulated earnings. A consistent set of rules applies to the translation of foreign taxes and adjustments thereto.

2. Functional currency

In general

All Federal income tax determinations generally are required to be made in a taxpayer's functional currency (sec. 985(a)). The functional currency approach presupposes a long-term commitment to a specific economic environment.

As a general rule, taxpayers are required to use the U.S. dollar as the functional currency (sec. 985(b)(1)(A)). Thus, except as otherwise provided, taxpayers must measure income or loss from dealings in foreign currency in U.S. dollars, on a transaction-by-transaction basis. In certain circumstances, described below, a taxpayer is required to use a foreign currency as the functional currency of a "qualified business unit" (generally, a self-contained foreign operation, referred to as a "QBU") (sec. 985(b)(1)(B)). Under these circumstances, income or loss derived from a QBU is determined in a foreign currency (before translation into U.S. dollars). In general, the use of a foreign currency as the functional currency of a QBU results in the deferral of exchange gain or loss from transactions conducted in that currency.

The rule for QBUs addresses, among other things, the treatment of a case in which a single taxpayer has multiple operations in different economic environments. In such a case, a taxpayer may be eligible to account for the results of a foreign operation by measuring income or loss in the currency of the host country (or, in appropriate circumstances, another foreign country). This rule applies where a foreign operation constitutes a trade or business, significant activities of which are conducted in the local currency.

The functional currency of a QBU is the currency of the economic environment in which a significant part of its business activities are conducted, and in which such unit keeps its books and records (sec. 985(b)(1)(B)). A single taxpayer can have more than one QBU.

The term "qualified business unit" is defined as any separate and clearly identified unit of a taxpayer's trade or business, if such unit maintains separate books and records (sec. 989(a)). A QBU must include every operation that forms a part of the process of earning income.

To identify the functional currency of a QBU, the taxpayer must establish that books and records are maintained in the currency of the economic environment in which a significant part of the unit's activities are conducted. The identification of a functional currency requires a factual determination.[119] These factors are similar to the current criteria that are used to identify a functional currency for financial accounting purposes.[120] The functional currency of a QBU is deemed to be the U.S. dollar if the unit's activities are conducted primarily in dollars (sec. 985(b)(2)).

The choice of a functional currency, including an election to use the U.S. dollar (described below), is treated as a method of accounting that can be changed only with the consent of the Treasury Secretary (and pursuant to such conditions as the Secretary may prescribe) (sec. 985(b)(4)). Generally, permission to change functional currencies will not be granted unless significant changes in the facts and circumstances of the QBU's economic environment occur (Treas. Reg. sec. 1.985-4(b)).

Election to use U.S. dollar

Apart from the identification of a functional currency under the facts-and-circumstances test (described above), to the extent provided in regulations, a taxpayer can elect to use the U.S. dollar as the functional currency of a QBU (sec. 985(b)(3)). Under the regulations, the only QBUs that are eligible to make the election are those that could have used hyperinflationary currencies as their functional currencies absent the U.S. dollar election (Treas. Reg. sec. 1.985-2(b)(1)). For this purpose, a hyperinflationary currency is one in which there is cumulative inflation during a base period of at least 100 percent (Treas. Reg. sec. 1.985-2(b)(2)).[121] The U.S. dollar election is made available to taxpayers operating in economies where hyperinflationary currencies exist, because local-currency based accounting might not accurately reflect the income or loss of a taxpayer with substantial fixed plant and equipment (for example, because the local currency depreciation charge will become insignificant in relation to operating income). The regulations require that in order to make the U.S. dollar election for one eligible QBU, the election must also be made for all related eligible QBUs (Treas. Reg. sec. 1.985-2(d)(3)).

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[119] In making the required determination, the factors taken into account shall include, but not be limited to: (1) the currency of the QBU's country of residence, (2) the currencies of the QBU's cash flows, (3) the currencies in which revenues are generated and expenses are incurred, (4) the currencies in which the QBU borrows and lends, (5) the currencies of the QBU's sales markets, (6) the currencies in which pricing and other decisions are made, (7) the duration of the QBU's business operations, and (8) the significance and/or volume of the QBU's independent activities (Treas. Reg. sec. 1.985-1(c)(2)(i)).

[120] *See* Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation," issued by the Financial Accounting Standards Board (December 7, 1981).

[121] For this purpose, the base period is the 36 calendar months immediately preceding the last day of the preceding taxable year.

A limited exception to the dollar-based books requirement requires that a QBU either use a method of translation that approximates the results of determining exchange gain or loss on a transaction-by-transaction basis (the U.S. dollar approximate separate transactions method) or, in limited circumstances, an alternative method if it can be demonstrated that the QBU could compute foreign currency gain or loss on a separate transaction basis under section 988 principles (Treas. Reg. sec. 1.985-2(d)(2)). Under the U.S. dollar approximate separate transactions method, a QBU is required to determine its income or loss or earnings and profits by performing the following steps: (1) preparing an income or loss statement from the QBU's books and records as recorded in the hyperinflationary currency, (2) making the adjustments necessary to conform that statement to U.S. accounting and tax principles, (3) translating the amounts of hyperinflationary currency as shown on the adjusted statement into U.S. dollars, and (4) adjusting the resulting dollar income or loss or earnings and profits to take into account currency gain or loss (Treas. Reg. sec. 1.985-3(b)).

3. Foreign currency transactions

In general

The Code prescribes rules for the treatment of exchange gain or loss from transactions denominated in a currency other than a taxpayer's functional currency. For taxpayers using the U.S. dollar as a functional currency, the disposition of certain foreign currency denominated items results in the recognition of gain or loss, and exchange gain or loss generally is separately accounted for (apart from any gain or loss attributable to the underlying transaction). The recognition of exchange gain or loss generally requires a closed and completed transaction or realization event (e.g., the actual payment of a liability).

Section 988 transactions

In general.—The term "section 988 transaction" signifies a certain subset of those transactions in which the amount required to be paid or entitled to be received is denominated in a nonfunctional currency, or is determined by reference to the value of one or more nonfunctional currencies (sec. 988(c)(1)(A)). Section 988 transactions include: (1) the acquisition of (or becoming the obligor under) a debt instrument, (2) accruing (or otherwise taking into account) any item of expense or gross income or receipt that is to be paid or received on a later date, (3) entering into or acquiring any forward contract, futures contract, option, or similar financial instrument (such as a currency swap), and (4) the disposition of nonfunctional currency (sec. 988(c)(1)(B) through (D)).[122]

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[122] For purposes of the rule for dispositions of nonfunctional currency, the term nonfunctional currency includes not only coin and currency, but also nonfunctional currency denominated demand or time deposits and similar instruments issued by a bank or other financial institution (sec. 988(c)(1)(C)(ii)). Thus, the use of a nonfunctional currency to establish a demand or time deposit denominated in the same nonfunctional currency (or the conversion of such a deposit to another deposit in the same currency) is not a recognition event.

A section 988 transaction need not require or even permit repayment with a nonfunctional currency, as long as the amount paid or received is determined by reference to the value of a nonfunctional currency. Examples of section 988 transactions are trade receivables or payables, and debt instruments denominated in one or more nonfunctional currencies. For purposes of these rules, the term debt instrument means a bond, debenture, note, certificate, or other evidence of indebtedness (sec. 988(c)(4)). Under regulations, moreover, the IRS may recharacterize other transactions as section 988 transactions where appropriate to the purposes of the statute (*see, e.g.*, Treas. Reg. sec. 1.988–1T(a)(8)).

Exception for certain instruments marked-to-market.—Unless otherwise elected by the taxpayer, the entry into any regulated futures contract or nonequity option which would be marked to market under Code section 1256 if held on the last day of the taxable year is excluded from the definition of section 988 transaction (sec. 988(c)(1)(D)).

Special rules for certain funds.—Also excluded from the definition of section 988 transaction is, in the case of a qualified fund, any instrument which would be marked to market under Code section 1256 if held on the last day of the taxable year (sec. 988(c)(1)(E)). For this purpose, a qualified fund is any partnership electing this treatment if it meets the following conditions: (1) at all times during the taxable year it has at least 20 partners and no single partner owns more than 20 percent of its capital or profits interests, (2) its principal activity for the taxable year consists of buying and selling commodities options, futures, or forwards contracts, (3) at least 90 percent of its gross income for the taxable year consists of interest, dividends, gains from commodities or commodities contracts, or gain from the sale of capital assets held for the production of interest or dividends, and (4) no more than a de minimis amount of its gross income for the taxable year was derived from buying and selling commodities.

Treatment of foreign currency gain or loss from section 988 transactions as ordinary income or loss

In general.—Foreign currency gain or loss attributable to a section 988 transaction generally is computed separately and treated as ordinary income or loss (sec. 988(a)(1)(A)). Under regulations, capital gain or loss treatment may be elected for forward contracts, futures contracts, and options that constitute capital assets in the hands of the taxpayer, are not regulated futures contracts or nonequity options, are not parts of a tax straddle, and that meet certain identification requirements (sec. 988(a)(1)(B)). In circumstances set forth by the Treasury, foreign currency gain or loss is treated as interest income or expense (sec. 988(a)(2)). Such cases include exchange loss realized by the holder of a debt instrument the interest on which is excluded from gross income under Code section 103 and exchange gain or loss realized in certain hedging transactions (Temporary Treas. Reg. sec. 1.988-3T(c)(1)).

Foreign currency gain or loss.—In the case of a disposition of a nonfunctional currency or of a section 988 transaction that consists in entering into or acquiring any forward contract, futures contract, option, or similar financial instrument (such as a currency swap), the entire gain or loss from the disposition or other transaction is considered "foreign currency gain or loss." For any other section 988 transaction, foreign currency gain or loss is defined as gain or loss from the transaction, but only to the extent the gain or loss is realized by reason of a change in exchange rates between the date an asset or liability is taken into account for tax purposes (referred to as the "booking date") and the date it is paid or otherwise disposed of, and only to the extent there is gain or loss derived from the transaction as a whole (sec. 988(b)). Where this second definition of foreign currency gain applies, and the taxpayer has a net gain on the transaction, there is no *foreign currency* gain if none of the gain is due to changes in the exchange rate between the functional and nonfunctional currencies. On the other hand, if the transaction involves acquisition of an asset denominated in a currency that subsequently appreciates, there is no foreign currency gain if the asset is sold at an overall loss.

For transactions involving the acquisition of or becoming the obligor under a debt instrument, the booking date is the date of acquisition or on which the taxpayer becomes the obligor (sec. 988(c)(2)(A)). For transactions involving items of expense or gross income, the booking date is the date on which the item is accrued or otherwise taken into account for Federal income tax purposes (sec. 988(c)(2)(B)). Generally, foreign currency gain or loss is measured by reference to a holding period that ends on the date on which payment is made or received with respect to a section 988 transaction (sec. 988(c)(3)).

Special rule for certain hedging transactions.—The Code authorizes the issuance of regulations for the integrated or otherwise consistent treatment of a series of transactions that are part of a so-called section 988 hedging transaction that includes at least one section 988 transaction (sec. 988(d)(1)). The Congress included this regulatory authority to provide certainty of tax treatment for foreign currency hedging transactions that are becoming commonplace (such as fully hedged foreign currency borrowings) and to insure that such a transaction is taxed in accordance with its economic substance. The term section 988 hedging transaction includes certain transactions entered into primarily to reduce the risk of (1) foreign currency exchange rate fluctuations with respect to property held or to be held by the taxpayer, or (2) foreign currency fluctuations with respect to borrowings or obligations of the taxpayer (sec. 988(d)(2)). A section 988 hedging transaction is to be identified by the taxpayer or the Secretary.

To date the IRS has exercised this authority by providing that, in the case of any transaction giving rise to foreign currency gain or loss that is part of a "qualified hedging transaction," all positions in the hedging transaction are integrated and treated as a single transaction (Temporary Treas. Reg. sec. 1.988-5T(a)(9)(i)(A)). A qualified hedging transaction is an integrated economic transaction consisting of a qualified debt instrument and a hedge (Temporary Treas. Reg. sec. 1.988-5T(a)(1)). An integrated economic transaction is one where all of the following requirements are met: (1) all nonfunctional currency payments to be made or received under the qualifying debt instrument are fully hedged on the date the transaction is identified as a hedging transaction; (2) the hedge is entered into on the date the transaction is so identified; (3) none of the parties to the hedge are related; (4) the taxpayer satisfies identification requirements as specified in regulations; (5) if the taxpayer is a foreign QBU, both the debt instrument and the hedge are properly reflected on its books throughout the term of the hedging transaction; and (6) both the debt instrument and the hedge are entered into by the same taxpayer (Temporary Treas. Reg. sec. 1.988-5T(a)(5)).

A qualified debt instrument generally is a debt instrument with respect to which all payments are denominated in, or determined with reference to, nonfunctional currencies (Temporary Treas. Reg. sec. 1.988-5T(a)(3)). A hedge generally is a spot contract, series of futures or forward contracts or combination thereof, a currency swap contract, or similar financial instrument, that permits the calculation of a yield to maturity in the currency in which the related debt instrument is denominated (Temporary Treas. Reg. sec. 1.988-5T(a)(4)).

Sourcing rules

In general.—Foreign currency gain is sourced, and foreign currency losses are allocated, generally by reference to the residence of the taxpayer or qualified business unit on whose books the underlying financial asset or liability is properly reflected (sec. 988(a)(3)(A)). For purposes of these rules, an individual's residence is defined as the country in which the "tax home" (as defined in sec. 911(d)(3)) is located; or in the case of any U.S. person (as defined in sec. 7701(a)(30)) other than an individual, the residence is the United States (sec. 988(a)(3)(B)(i)). In the case of a foreign corporation, partnership, trust, or estate, the residence is treated as a foreign country.

Exception for qualified business units.—The residence of a taxpayer's qualified business unit (including the qualified business unit of an individual) is the country in which the unit's principal place of business is located (sec. 988(a)(3)(B)(ii)).

Special rule for certain related party loans.—A special rule is provided for purposes of determining the source or allocation of exchange gain or loss from certain related party loans. This rule was enacted to prevent the manipulation of residence to artificially increase foreign source income for purposes of computing allowable foreign tax credits. Under the special rule, affected loans are marked to market on an annual basis, and interest income earned on the loan during the taxable year is treated as domestic source income to the extent of any loss on the loan (sec. 988(a)(3)(C)).

The special rule applies to a loan by a U.S. person or a related person (e.g., a foreign subsidiary) to a 10-percent owned (directly or indirectly) foreign corporation, which loan is (1) denominated in a currency other than the dollar, and (2) bears interest at a rate at least 10 percentage points higher than the AFR for mid-term Federal obligations at the time the loan is made.

Application to transactions of a personal nature

Code section 988 applies to transactions entered into by an individual only to the extent that expenses attributable to such transactions would be deductible under section 162 (as a trade or business expense) or section 212 (as an expense of producing income, other than expenses incurred in connection with the determination, collection, or refund of taxes) (sec. 988(e)).[123] Thus, for example, section 988 is inapplicable to exchange gain or loss recognized by a U.S. individual resident abroad upon repayment of a foreign currency denominated mortgage on the individual's principal residence.

4. Foreign currency translation

In general

Any entity that uses a nonfunctional currency is required to measure the untranslated results of its operations under a profit and loss method, and to translate income or loss into the functional currency at a prescribed ("appropriate") exchange rate for a taxable year. The translation of payments of, and subsequent adjustments to, foreign taxes by a branch is performed under the same rules that apply in determining the foreign tax credit allowable to a parent corporation with respect to taxes paid by an affiliated foreign corporation. These translation rules apply without regard to the form of enterprise through which the taxpayer conducts business, as long as the enterprise rises to the level of a QBU.

Foreign branches

Translation of taxable income or loss.—For each taxable year, a U.S. taxpayer with a foreign branch whose functional currency is a currency other than the U.S. dollar must compute income or loss separately for each QBU in the business unit's functional currency, converting this amount to U.S. dollars using the weighted average exchange rate for the taxable period over which the income or loss was derived (secs. 987 and 989(b)(4)). The translated amount is included in income of the taxpayer without reduction for remittances from the branch during the year.

A taxpayer recognizes exchange gain or loss on any remittance of property (not just currency, and without regard to whether or when the remittances of currency are converted to dollars), to the extent the value of the currency at the time of the remittance differs from the value when earned. Remittances of foreign branch earnings (and interbranch transfers involving branches with different functional currencies) are treated as paid pro rata out of post-1986 accumulated earnings of the branch (sec. 987(3)(A)). For purposes of computing exchange gain or loss on remittances, the value of the remittance is translated using the rate in effect on the date of remittance. Exchange gains and losses on such remittances are sourced or allocated by reference to the income giving rise to post-1986 accumulated earnings (generally, the residence of the QBU, unless the income of the unit is derived from U.S. sources).

Treatment of direct foreign taxes.—The translation of payments of (and subsequent adjustments to) foreign income, war profits, or excess profits taxes paid by a branch are performed under the same rules that apply in determining the indirect foreign tax credit allowable to a corporation with respect to taxes paid by a foreign corporation. A foreign income tax paid by a branch is translated into U.S. dollars using the exchange rate in effect as of the time of payment (sec. 986(a)(1)(A)).[124]

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[123] The determination of whether expenses would be deductible under section 212 is made without regard to the two-percent floor applicable to investment expenses.

Foreign corporations

For purposes of determining the tax of any shareholder of a foreign corporation, the earnings and profits of the foreign corporation are determined in the corporation's functional currency (sec. 986(b)(1)). The Code prescribes appropriate exchange rates to translate actual distributions; deemed distributions under subpart F, the foreign personal holding company rules, and the rules relating to passive foreign investment companies; and gain that is recharacterized under section 1248 as dividend income on the disposition of stock in a CFC or former CFC (secs. 986(b)(2) and 989(b)). The use of an historical exchange rate is required to translate foreign taxes that are deemed paid (sec. 986(a)(1)(A)).

Translation of earnings and profits.—On the actual distribution of earnings and profits from a foreign corporation, a U.S. taxpayer is required to translate such amounts (if necessary) at the current exchange rate on the date the distribution is included in income (sec. 989(b)(1)).[125] Similarly, in the case of gain that is treated as a distribution of earnings under section 1248, the deemed dividend is translated (if necessary) at the current exchange rate on the date the amount is included in income (sec. 989(b)(2)). Thus, for actual distributions and deemed dividends under section 1248, no exchange gain or loss is separately recognized as the result of exchange rate fluctuations between the time earnings and profits arise and the time of distribution.

In the case of deemed distributions under subpart F, the foreign personal holding company rules, or the passive foreign investment company rules, the required income inclusion is first calculated in the functional currency and then translated at the weighted average exchange rate for the foreign corporation's taxable year (sec. 989(b)(3)).

Exchange gain or loss is recognized as the result of exchange rate fluctuations between the time of a deemed distribution and the time such previously taxed income ("PTI") is actually distributed (sec. 986(c)(1)).[126] The amount of PTI is calculated in the functional currency. Exchange gain or loss on distributions of PTI is to be treated as ordinary income or loss, sourced or allocated in the same manner as the associated income inclusion.

Treatment of deemed-paid foreign taxes.—The rules discussed above for translation of direct foreign tax payments by branches are equally applicable for purpose of determining the amount of foreign taxes deemed paid under Code section 902 or 960 (sec. 986(a)(1)(A)). Thus, a foreign income, war profits, or excess profits tax paid by a foreign corporation is translated into U.S. dollars (if necessary) using the exchange rate as of the time of payment. Any refund or credit of a foreign tax is translated using the rate in effect as of the original payment date, and any increase is translated at the rate in effect on the date of adjustment (sec. 986(a)(1)(B)).

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[124] Taxpayers are permitted to calculate foreign tax credits on the basis of foreign taxes accrued but not paid (sec. 905).

[125] Subpart F inclusions under section 951(a)(1)(B) relating to increases in investments in U.S. property are translated at the same rates as actual distributions made on the last day of the taxable year (sec. 989(b)).

[126] Previously taxed income rules do not apply to distributions from foreign personal holding companies.

Under prior law, in the case of an actual distribution by a foreign subsidiary, the regulations promulgated under section 902 of the Code provided that accumulated profits denominated in a foreign currency were translated into U.S. dollars at the exchange rate in effect on the date the dividend was distributed (Treas. Reg. sec. 1.902-1(g)(1)). Under the authority of the *Bon Ami Co.* case,[127] the amounts of the dividend and the foreign taxes deemed paid were also translated at the exchange rate in effect on the date of distribution.[128]

Under the *Bon Ami* approach, the deemed-paid foreign tax was increased or decreased by exchange rate fluctuations, even if the tax actually was paid in an earlier year (so that the tax liability in terms of U.S. dollars was fixed). This approach was often defended on the ground that it preserved the historic ratio between foreign taxes and accumulated profits, so that the U.S.-dollar value of the foreign tax eligible for credit was the same percentage of the U.S.-dollar value of the dividend as the effective foreign currency denominated tax was of the related earnings. Congress determined in the 1986 Act, however, that retention of the foreign tax rate was not a goal of U.S. tax policy. In Congress' view, the *Bon Ami* approach resulted in a tax advantage if the foreign corporation's functional currency appreciated against the dollar, and a tax penalty if the functional currency depreciated in value.

Once a subsidiary actually pays a foreign tax, the U.S.-dollar cost of that tax is fixed. The *Bon Ami* approach was inconsistent with the rules applied to taxpayers who incurred direct foreign taxes (because they operate through branches or incur withholding taxes). This inconsistency defeated one of the purposes of the indirect tax credit, which is to equalize the tax burden on domestic corporations operating abroad through subsidiaries and branches. Further, a corporation operating through a subsidiary always has the option to maintain the desired "historic" relationship between foreign taxes and accumulated profits by repatriating earnings on a current basis. Presumably, this option would be exercised when favorable tax results are anticipated. Thus, Congress concluded that foreign taxes should be translated at the historical rate.

G. Special Provisions for U.S. Persons

1. Foreign Sales Corporations

Under special Code provisions, a portion of the export income of an eligible foreign sales corporation (FSC) is exempt from Federal income tax. In addition, a domestic corporation is allowed a 100-percent dividends-received deduction for dividends distributed from the FSC out of earnings attributable to certain foreign trade income. Thus, there generally is no corporate level tax imposed on a portion of the income from exports of a FSC.[129]

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[127] 39 B.T.A. 825 (1939) (a case decided under the predecessor to section 902 of the Code).

[128] *But see Commissioner v. American Metal Co.*, 221 F.2d 134, 141 (2d Cir.), *cert. denied*, 350 U.S. 879 (1955) (where the foreign corporation kept its books in U.S. dollars, foreign taxes were translated as of their payment date).

Typically, a FSC is a company owned by a U.S. company, such as manufacturer, that produces goods in the United States. The U.S. company either supplies the goods to the FSC for resale abroad to unrelated persons, or pays the FSC a commission in connection with its own sales to unrelated persons. Therefore, the income of the FSC, a portion of which is exempt under the FSC rules, equals the FSC's gross markup or gross commission income, less the expenses incurred by the FSC itself. Under the rules of the General Agreement on Tariffs and Trade (GATT), an exemption from tax on export income is permitted only if the economic processes which give rise to the income take place outside the United States. In conformity with these rules, a FSC must have a foreign presence, it must have economic substance, and activities that relate to its export income must be performed by the FSC outside the U.S. customs territory. Furthermore, the income of the FSC must be determined according to statutorily specified transfer pricing rules which are intended to comply with GATT's requirement of arm's-length prices.

Foreign sales corporations generally

General requirements

In order to qualify to elect status as a FSC, a foreign corporation must have adequate foreign presence. To have adequate foreign presence, a foreign corporation must satisfy each of the following six requirements.

(1) *Foreign organization.*—The corporation must be created or organized under the laws of a foreign country or possession of the United States (sec. 922(a)(1)(A)).[130] If the corporation is organized in a foreign country, that country must be either (1) a party to an exchange of information agreement that meets the standards of the Caribbean Basin legislation (sec. 274(h)(6)(A)(i)) ("CBI Agreement"), or (2) an income tax treaty partner of the United States, provided the Secretary of the Treasury certifies that the exchange of information program with that country under the treaty is satisfactory, and the country of organization must be authorized to exchange information with respect to the FSC (sec. 927(e)(3)).

(2) *Shareholders.*—A FSC may have no more than 25 shareholders at any time during the taxable year (sec. 922(a)(1)(B)).

(3) *Preferred stock.*—A FSC may not have any preferred stock outstanding during the taxable year (sec. 922(a)(1)(C)).

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[129] The Code provided two recent export incentives prior to the enactment of the foreign sales corporation provisions in 1984. As enacted in 1962, controlled foreign corporations that qualified as export trade corporations were permitted to reduce their subpart F income by the amount of certain export trade income (secs. 970 and 971). No controlled foreign corporation may qualify as an export trade corporation unless it so qualified as of 1971. As enacted in 1971, domestic international sales corporations (DISCs), which are U.S. corporations, were permitted to defer U.S. taxation on certain export receipts (secs. 991–997). An opportunity was provided in the 1984 Act for any DISC to transfer its deferred earnings, without tax, to a FSC. An interest charge is now imposed on the deferral of any remaining DISC (sec. 995(f)).

[130] For purposes of this provision, a possession of the United States includes Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands of the United States, but does not include Puerto Rico (sec. 927(d)(5)).

(4) *Office and books of account outside the United States.*—A FSC must maintain an office located outside the United States, and maintain a set of the permanent books of account at that office (sec. 922(a)(1)(D)).[131] The office need not be located in the country in which the FSC is organized; however, the office must be in a country which is either a party to a CBI agreement with the United States or an income tax treaty partner, which the Treasury Department certifies as having a satisfactory exchange of information program under the treaty. In addition, a FSC must maintain at a location in the United States such books and records as are sufficient under Code section 6001 to establish the amount of gross income, deductions, credits, or other matters required to be shown in the FSC's tax return.

(5) *Board of directors.*—At all times during the taxable year, the FSC must have a board of directors which includes at least one individual who is not a resident of (but may be a citizen of) the United States (sec. 922(a)(1)(E)).

(6) *Controlled group.*—A FSC may not be a member at any time during the taxable year of any controlled group of corporations of which a DISC is a member (sec. 922(a)(1)(F)).[132]

Small FSC

A FSC may elect to be a small FSC, provided that it is not a member of a controlled group of corporations which includes another FSC (unless the other FSC has also made a small FSC election) (sec. 922(b)).

Exempt foreign trade income

A portion of the foreign trade income of a FSC may be exempt from Federal income tax. To achieve this result, the exempt foreign trade income is treated as foreign source income which is not effectively connected with the conduct of a trade or business within the United States (sec. 921(a)). The portion of foreign trade income that is treated as exempt foreign trade income depends on the pricing rule used to determine the amount of foreign trade income earned by the FSC. If the amount of income earned by the FSC is based on arm's-length pricing between unrelated parties, or between related parties under the rules of section 482, then exempt foreign trade income generally is 30 percent of the foreign trade income the FSC derives from a transaction (secs. 923(a)(2) and (6) and 291(a)(4)). For this purpose, foreign trade income does not include any income attributable to patents and other intangibles which do not constitute export property. If the income earned by the FSC is determined under the special administrative pricing rules, then the exempt foreign trade income generally is 15/23 of the foreign trade income the FSC derives from the transaction (secs. 923(a)(3) and (6) and 291(a)(4)).

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[131] For this purpose, "United States" means the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico (sec. 927(d)(3)).

[132] For this purpose, the term controlled group is that as is specified in section 1563(a), but modified in two respects: first, the threshold level of stock ownership is reduced from 80 percent to more than 50 percent; and second, the rules relating to component members under section 1563(b) are inapplicable (sec. 927(d)(4)).

Exempt foreign trade income is an exclusion from gross income of the FSC. Any deductions of the FSC properly apportioned and allocated to the foreign trade income derived by the FSC from a transaction are allocated on a proportionate basis between exempt and nonexempt foreign trade income (sec. 921(b)). Thus, deductions allocable to exempt foreign trade income may not be used to reduce the taxable income of the FSC.

Foreign trade income

In general

Foreign trade income is defined as the gross income of a FSC attributable to foreign trading gross receipts (sec. 923(b)). Foreign trade income includes both the profits earned by the FSC itself from exports and commissions earned by the FSC from products or services exported by others.

Foreign trade income other than exempt foreign trade income (nonexempt foreign trade income) generally is treated as U.S. source income effectively connected with the conduct of a trade or business conducted through a permanent establishment within the United States (sec. 921(d)(1)). Thus, nonexempt foreign trade income generally is taxed currently and treated as U.S. source income for purposes of the foreign tax credit limitation. If, however, a FSC earns nonexempt foreign trade income in a transaction using a pricing method described in section 482 (sec. 923(a)(2) nonexempt income), the source and taxation of such income is determined under the present-law rules generally applicable to taxpayers other than FSCs.

Foreign tax credit

A FSC generally is not allowed a foreign tax credit or a deduction for foreign income, war profits, or excess profits taxes paid or accrued with respect to exempt or nonexempt foreign trade income (secs. 906(b)(5) and 275(a)(4)(B)). In addition, a shareholder of a FSC generally is not eligible for a foreign tax credit with respect to a foreign withholding tax imposed on a dividend attributable to foreign trade income (sec. 901(h)).

Two categories of FSC income are subject to separate foreign tax credit limitations. The first category is taxable income attributable to foreign trade income (at the FSC level) (sec. 904(d)(1)(G)). Since none of the taxes that a FSC incurs on foreign trade income are creditable unless administrative pricing rules are used, the function of this separate limitation generally is to prevent any increase in the general limitation category with respect to the FSC's foreign source income.[133] The second category of income is distributions from a FSC or former FSC out of earnings and profits attributable to foreign trade income (at the level of the shareholder) (sec. 904(d)(1)(H)). The only such distributions that are not eligible for the dividends-received deduction in the hands of a corporate shareholder are those attributable to nonexempt foreign trade income determined without reference to an administrative pricing rule.

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[133] The only taxes on foreign trade income that are creditable are those on nonexempt foreign trade income determined without reference to an administrative pricing rule (sec. 901(h)).

This separate limitation prevents any increase in the shareholder's general limitation category with respect to distributions from the FSC.

Foreign trading gross receipts

In general

In general, the term foreign trading gross receipts means the gross receipts of a FSC which are attributable to the export of certain goods and services. Except for certain receipts not included in foreign trading gross receipts, foreign trading gross receipts are the gross receipts of any FSC that are attributable to the following types of transactions: The sale of export property, the lease or rental of export property, services related and subsidiary to the sale or lease of export property, engineering and architectural services, and export management services (sec. 924(a)).

For a FSC (other than a small FSC) to have foreign trading gross receipts, two additional requirements must be met—the foreign management and foreign economic process requirements. A FSC will be treated as having foreign trading gross receipts only if the management of the corporation during the taxable year takes place outside the United States, and only if certain economic processes with respect to particular transactions take place outside the United States (sec. 924(b)).

Foreign management

The requirement that the FSC be managed outside the United States is treated as satisfied for a particular taxable year if (1) all meetings of the board of directors of the corporation and all meetings of the shareholders of the corporation are outside the United States; (2) the principal bank account of the corporation is maintained in a foreign country which is either a party to a CBI agreement with the United States, or an income tax treaty partner which the Treasury certifies as having a satisfactory exchange of information program under the treaty or in a U.S. possession at all times during the taxable year; and (3) all dividends, legal and accounting fees, and salaries of officers and members of the board of directors of the corporation paid during the taxable year are disbursed out of bank accounts of the corporation outside the United States (sec. 924(c)).

Foreign economic processes

The foreign economic process requirements relate to the place where all or a portion of certain economic process activities are performed. The first requirement relates to the sales portion of the transaction, and the second requirement relates to the direct costs incurred by the FSC.

Sales portion of the transaction.—A FSC is not considered to earn foreign trading gross receipts from a transaction unless the FSC, or a person under contract with the FSC, participates outside the United States in the solicitation (other than advertising), negotiation, or making of the contract relating to the transaction (sec. 924(d)(1)(A)). The sales requirement generally is tested on a transaction-by-transaction basis.

Direct cost tests.—A FSC generally may not earn foreign trading gross receipts from a transaction unless the foreign direct costs incurred by the FSC attributable to the transaction are at least 50 percent of the total direct costs incurred by the FSC with respect to the transaction (sec. 924(d)(1)(B)).

The term "total direct costs" means, with respect to any transaction, the total direct costs incurred by the FSC at any location attributable to the activities relating to the disposition of export property (five categories of activities are considered) (sec. 924(d)(3)(A)).[134] The term "foreign direct costs" means the portion of the total direct costs incurred by the FSC which are attributable to activities performed outside the United States (sec. 924(d)(3)(B)).

The requirement that the foreign direct costs incurred by the FSC be at least 50 percent of the total direct costs incurred by the FSC attributable to a transaction may be met by an alternative 85-percent test (sec. 924(d)(2)). Under this alternative test, a corporation is treated as satisfying the requirement that economic processes take place outside the United States if the foreign direct costs incurred by the FSC attributable to any two of the five categories of activities relating to disposition of the export property equal or exceed 85 percent of the total direct costs of those two categories.

Excluded receipts

Certain receipts are not included in the definition of foreign trading gross receipts. One category of excluded receipts includes, for example, receipts of a FSC from a transaction (1) if the export property or services are for ultimate use in the United States, or are for use by the United States and such use is required by law or regulation; (2) if the transaction is accomplished by a subsidy granted by the United States; or (3) in certain cases, if the receipts are from another FSC which is a member of the same controlled group (sec. 924(f)(1)). Investment income and carrying charges also are excluded from the definition of foreign trading gross receipts (sec. 924(f)(2)).[135] Income attributable to excluded receipts is not foreign trade income and, therefore, no portion of such income is exempt.

Transfer pricing rules

In general

If export property is sold to a FSC by a related person (or a commission is paid by a related principal to a FSC with respect to export property), the taxable income of the FSC and related person is based upon a transfer price determined under an arm's-length pricing approach or under one of two formulae ("administrative pricing rules") which are intended to approximate arm's-length pricing.

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[134] The five categories of activities that are considered in determining direct costs are advertising and sales promotion, processing customer orders and arranging for delivery, transportation, determination and transmittal of a final invoice or statement of account and the receipt of payment, and the assumption of credit risk (sec. 924(e)).

[135] Investment income includes dividends, interest, annuities, royalties, rents other than from the lease of export property for use outside the United States, gains from the sale or exchange of stocks or securities, and certain other passive income (sec. 927(c)). Carrying charges include any amount in excess of the price for an immediate cash sale and any other unstated interest (sec. 927(d)(1)).

Conditions on use of administrative transfer pricing rules

In order to use the special administrative pricing rules, a FSC must perform significant economic functions with respect to the sales transaction (sec. 925(c)). Accordingly, a FSC must meet two requirements. The first requirement is that all of the five activities (discussed above) with respect to which the direct costs are taken into account for the 50 or 85 percent foreign direct costs tests must be performed by the FSC or by another person acting under contract with the FSC. The second requirement is that all of the activities relating to the solicitation (other than advertising), negotiation, and making of the contract that are attributable to the sale must be performed by the FSC (or by another person acting under contract with the FSC).

Determination of transfer price

If the FSC buys export property from a related supplier and then resells to third parties, the rules permit the first transaction to be priced so as to allow the FSC to derive taxable income from the resale equal to the greatest of (1) 1.83 percent of the foreign trading gross receipts derived from the sale of the property; (2) 23 percent of the combined taxable income of the FSC and the related person from the resulting foreign trading gross receipts (these two pricing rules are the so-called "administrative pricing" rules); or (3) taxable income based upon the actual related-supplier-to-FSC sales price, but subject to the rules provided in section 482 (sec. 925(a)). Commissions, rents, and other types of income may be set under consistent principles (Treas. Reg. sec. 1.925(a)-1T).

The transfer pricing rules only apply to determine the price of a sale to a FSC (or FSC commissions). A FSC, or a principal for which the FSC is acting as commission agent, must sell to a related purchaser on an arm's-length basis, under the provisions of Code section 482, viewing the FSC and any related supplier as a single entity which sells to the purchaser.

Taxation of the FSC

As described above, a FSC is not subject to U.S. tax on exempt foreign trade income. A FSC's nonexempt foreign trade income is subject to U.S. tax unless it is determined without reference to an administrative pricing rule, in which case it will be taxed in the same manner and to the same extent as income earned by a foreign corporation that is not a FSC. Interest, dividends, royalties, other investment income and carrying charges are subject to U.S. tax (sec. 921(d)(2) and (3)).

Distributions to shareholders

A FSC is not required or deemed to make distributions to its shareholders. Actual distributions are treated as being made first out of earnings and profits attributable to foreign trade income, and then out of any other earnings and profits (sec. 926(a)). Any distribution made by a FSC which is made out of earnings and profits attributable to foreign trade income to a shareholder which is a foreign corporation or a nonresident alien individual is treated as a distribution which is effectively connected with the conduct of the trade or business conducted through a permanent establishment of the shareholder within the United States, and as U.S. source income (sec. 926(b)). Thus, such distributions will be subject to Federal income tax.

Dividends received from a FSC

A domestic corporation generally is allowed a 100 percent dividends-received deduction for amounts distributed from a FSC out of earnings and profits attributable to foreign trade income (sec. 245(c)(1)(A)). Thus, aside from possible alternative minimum tax consequences, there is no corporate level tax on exempt foreign trade income and only a single-level corporate tax (at the FSC level) on foreign trade income other than exempt foreign trade income. However, a 100 percent dividends-received deduction is not allowed for nonexempt foreign trade income determined without reference to an administrative pricing rule (sec. 245(c)(2)).

Other definitions and special rules

Export property

In general, the term export property means property manufactured, produced, grown or extracted in the United States by a person other than a FSC, held primarily for sale, lease, or rental in the ordinary course of trade or business for direct use or consumption outside the United States, and not more than 50 percent of the fair market value of which is attributable to articles imported into the United States (sec. 927(a)). The term export property does not include (1) property leased or rented by a FSC for use by any member of a controlled group of which the FSC is a member, (2) patents and other intangibles, (3) oil or gas (or any primary product) thereof, or (4) products the export of which is prohibited. Export property also excludes property designated by the President as being in short supply.

Gross receipts

In general, the term gross receipts means the total receipts from the sale, lease, or rental of property held primarily for sale, lease, or rental in the ordinary course of a trade or business, and gross income from all other sources (sec. 927(b)). In the case of commissions on the sale, lease, or rental of property, the amount taken into account for purposes of these provisions as gross receipts is the gross receipts on the sale, lease, or rental of the property on which the commissions arose.

Small FSC

A FSC that elects to be a small FSC need not meet the foreign management and foreign economic process requirements in order to have foreign trading gross receipts (sec. 924(b)(2)(A)). In determining the exempt foreign trade income of a small FSC, however, any foreign trading gross receipts that exceed $5 million are not taken into account (sec. 924(b)(2)(B)). The activities attributable to a sale and described in section 924(d) and (e) must still be performed by the FSC or by another person acting under contract with the FSC (sec. 925(c)). If the foreign trading gross receipts of a small FSC exceed the $5 million limitation, the corporation may select the gross receipts to which the limitation is allocated.

Shared FSCs

Special rules are provided for FSCs with multiple shareholders that meet certain specifications (generally referred to as shared FSCs). A shared FSC is any FSC that maintains a separate account for transactions with each shareholder, that bases distributions to each shareholder on the amounts in the respective shareholder's separate account, and satisfies any other requirement set forth in regulations (sec. 927(g)(3)).

In general, each separate account so maintained by a shared FSC is treated as a separate corporation for income tax purposes (sec. 927(g)(1)). Separate corporation status does not apply for certain corporate-level requirements for FSC status, for the foreign presence requirements, and for the determination of whether the FSC is a small FSC (sec. 927(g)(2)).

2. Puerto Rico and possession tax credit

In general

As described above, a U.S. corporation is subject to U.S. income tax on its worldwide income. Generally, a foreign corporation is subject to U.S. income tax only with respect to its income derived from sources within the United States or income which is effectively connected with the conduct of a trade or business in the United States. For this purpose, a U.S. corporation is one created or organized under U.S. or State law, and the term "United States" generally includes only the 50 States and the District of Columbia. Any other corporation is a foreign corporation.

A domestic corporation may eliminate its U.S. tax on certain income associated with certain possessions and certain foreign countries by means of the Puerto Rico and possession tax credit under Code section 936.[136] In effect, this credit may eliminate all income tax on a domestic corporation doing business in a possession where the corporation is also excused from paying the possession's local income tax.[137]

Qualification requirements

In order to qualify for the possession tax credit, a domestic corporation must satisfy the following two requirements. First, the corporation must derive at least 75 percent of its gross income from the active conduct of a trade or business within a U.S. possession during the preceding three years.[138] Second, at least 80 percent of the gross income of the corporation must be derived from sources within a U.S. possession during that same three-year period. A domestic corporation which satisfies these requirements and elects the benefits of section 936 generally is referred to as a "qualified possession corporation" or "section 936 corporation."

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[136] U.S. possessions include Puerto Rico, the Northern Mariana Islands, Guam, the U.S. Virgin Islands, American Samoa, and for this purpose, the Federal States of Micronesia.

[137] For example, the domestic laws of Puerto Rico include certain tax incentive provisions which allow qualifying companies to receive full or partial tax holidays over a number of years.

[138] The majority of corporations that currently qualify for the section 936 credit have established operations in Puerto Rico.

Operation of the credit

General rule

As described above, a qualified possessions corporation, like any other domestic corporation, generally is subject to U.S. taxation on its worldwide income. However, section 936 allows such a corporation a credit equal to the portion of its U.S. tax liability that is attributable to (1) foreign source taxable income from the conduct of an active trade or business within a U.S. possession or the sale or exchange of substantially all of the corporation's assets which were used in such a trade or business, and (2) certain income earned from investments in U.S. possessions or certain foreign countries, generally referred to as qualified possession source investment income ("QPSII").

To illustrate the operation of the section 936 credit, consider the following example. Assume that a qualified possession corporation which has elected the use of the section 936 credit earns $80 of foreign source taxable income from the active conduct of a trade or business in a U.S. possession, and $20 of QPSII (also foreign source) during the taxable year. Further assume that the corporation earns no additional income. Absent the section 936 credit, the corporation would have a U.S. tax liability of $34.[139] However, section 936 allows a tax credit equal to the portion of tentative U.S. tax attributable to possession-related income. Since all of the corporation's taxable income for the year was derived from an active business conducted in a U.S. possession or from QPSII, the credit eliminates the corporation's entire U.S. tax liability for the year.

As this description indicates, the section 936 credit, unlike the ordinary foreign tax credit, is a "tax-sparing" credit. That is, the foreign tax credit is applicable only where a U.S. corporation has actually paid or accrued a foreign tax liability with respect to income earned from non-U.S. sources. The foreign tax credit operates as a mechanism to prevent double taxation of the same item of foreign source income. By contrast, the section 936 credit is not contingent on taxation in the possession, but spares the section 936 corporation U.S. tax whether or not it pays income tax to the possession.

Taxation of intangible property income

In response to issues associated with the outbound transfer of intangible property developed in the United States, the Tax Equity and Fiscal Responsibility Act of 1982 added sections 367(d) and 936(h) to the Code.[140] Section 367(d) (discussed in detail under "Taxation of certain transfers of property outside the United States") provides rules which generally treat the transfer of intangible property by a U.S. person to a foreign person in an otherwise tax free exchange or reorganization as a taxable sale of such property, the sales price of which is contingent on the future income to be generated by the intangible property.[141] The resulting income is treated as having a U.S. source. Section 936(h) provides rules for allocating income from intangible property between a qualified possession corporation and its U.S. shareholders. Three alternative methods are provided for allocating intangible property income. These methods include (1) a general rule, (2) a cost sharing method, and (3) a profit split approach. Under the general rule, a qualified possession corporation is prohibited from earning any return on intangible property. Instead, all such income must be allocated to its U.S. shareholders. However, a qualified possession corporation may elect to use either the cost sharing or profit split method instead of the general rule.

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[139] Taxable income of $100 multiplied by the current U.S. corporate income tax rate of 34 percent.

[140] P.L. 97-248, section 213(a)(2) and (d).

The operation of the cost sharing and profit split methods was subsequently revised by the Tax Reform Act of 1986. Relevant 1986 Act revisions included both direct amendments to section 936(h) and also amendments to section 482.[142] Insofar as amounts computed under either method were determined by reference to the meaning of "arms length" as used in section 482, these methods were affected by the requirement, added by the 1986 Act, that the income with respect to any transfer or license of intangible property shall be "commensurate with the income attributable to the intangible."

Currently, under the cost sharing method, a qualified possession corporation must pay to the appropriate members of its affiliated group (which includes foreign affiliates) an amount representing its current share of the costs of the research and development expenses incurred by the affiliated group. A qualified possession corporation's current share of the affiliated group's research and development expenses is the greater of (1) the total amount of such expenses, multiplied by 110 percent of the proportion of its sales as compared to total sales of the affiliated group, or (2) the amount of the royalty payment or inclusion that would be required under sections 367(d) and 482 with respect to intangible property which the qualified possession corporation is treated as owning under the cost sharing option, were the latter a foreign corporation (whether or not intangible property is actually transferred to the qualified possession corporation). By making this cost sharing payment, the qualified possession corporation becomes entitled to treat its income as including a return from certain manufacturing intangibles, associated with the products it manufactures in the possession.

Under the profit split method, the qualified possession corporation and its U.S. affiliates are permitted to split their combined taxable income derived from sales of products which are manufactured in the possession by the qualified possession corporation. Generally, 50 percent of this combined taxable income is allocated to the qualified possession corporation. However, a required special allocation of research and development expenses can cause the proportion of combined taxable income allocated to the qualified possession corporation to be less than 50 percent (sec. 936(h)(5)(C)(ii)(II)). In no event under the profit split approach will the combined taxable income which is allocable to the qualified possession corporation exceed 50 percent.

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[141] For this purpose, intangible property is any (1) patent, invention, formula, process, design, pattern or know-how, (2) copyright, literary, musical, or artistic composition, (3) trademark, trade name, or brand name, (4) franchise, license, or contract, (5) method, program, system, procedure, campaign, survey, study, forecast, estimate, customer list, or technical data, or (6) any similar item.

[142] P.L. 99-514, section 1231.

Alternative minimum tax

Income earned by a qualified possession corporation that qualifies for the section 936 credit is exempted from alternative minimum taxable income, and therefore is not subject to the alternative minimum tax.

Taxation of distributions to shareholders of qualified possession corporations

A qualified possession corporation is not permitted to join in filing a consolidated U.S. tax return. Therefore, dividends paid by the qualified possession corporation to its U.S. shareholder are not eliminated under the rules applicable to affiliated groups of corporations that file tax returns on a consolidated basis. However, such dividends may qualify for the deduction for dividends received from a domestic corporation (sec. 243). In the case of a corporate shareholder that owns at least 80 percent of a qualified possession corporation, 100 percent of dividends received from such corporation are deductible by the shareholder. For corporate shareholders owning less than 80 percent of a qualified possession corporation, a 70 percent dividends received deduction is available. A dividend paid by a qualified possession corporation to its U.S. corporate shareholder constitutes adjusted current earnings of the shareholder for purposes of computing its alternative minimum tax.

3. Taxation of certain transfers of property outside the United States

Overview

Certain transfers of appreciated property, in the course of a corporate organization, reorganization, or liquidation, can be made without recognition of gain to the corporation involved or its shareholders. If the transfer is made out of the United States (an "outbound transfer"), however, a foreign corporation is not considered a corporation unless certain requirements are satisfied. Because corporate status is essential to a tax-free organization, reorganization, or liquidation, treatment of a foreign corporation as a non-corporate entity may result in the recognition of gain realized by the participating corporation and shareholders. This rule is designed to prevent certain tax-free removals of appreciated assets from U.S. tax jurisdiction prior to their sale.

The types of tax-free exchanges that are subject to these special rules are contributions of property to the capital of a controlled corporation (sec. 351), corporate reorganizations (secs. 354, 356, and 361), and liquidations of subsidiary corporations (sec. 332).

In the case of an outbound transfer of assets by a U.S. person in a transaction other than those described above, the Code imposes an excise tax equal to 35 percent of the unrecognized appreciation with respect to the transferred asset.

General rule

Except as otherwise provided by statute or regulation, if, in connection with any exchange described in section 332, 351, 354, 356, or 361, a U.S. person transfers property to a foreign corporation, such foreign corporation is not considered to be a corporation, for purposes of determining the extent to which gain is recognized on such transfer (sec. 367(a)(1)). Except as provided in regulations, this rule does not apply to the transfer of stock or securities of a foreign corporation that is a party to the exchange or a party to the reorganization (sec. 367(a)(2)). The term "party to the exchange" as used in this provision includes a party to the reorganization (as defined in section 368(b)) and the transferor and transferee in an exchange other than a reorganization.[143]

Exception for property transferred for use in an active trade or business

Except as provided in regulations and as set forth below with respect to certain "tainted assets," no gain is recognized on the transfer of property to a foreign corporation for use by such foreign corporation in the active conduct of a trade or business outside of the United States (sec. 367(a)(3)(A)).

Partnership interests

A special rule is provided for transfers of partnership interests (sec. 367(a)(4)). Except as provided in regulations, an outbound transfer of a partnership interest to a foreign corporation is treated as a transfer of the U.S. taxpayer's pro rata share of the partnership assets.[144] Under this rule, the tax consequences of an outbound transfer of a partnership interest turn on whether the transfer of the underlying partnership assets would be tax-free or subject to a toll charge.

Exceptions not applicable to certain transfers

As a general rule, neither the active trade or business exception nor the exception for stock and securities of a corporation that is a party to the reorganization apply to a transfer of property described in subsection (a) or (b) of section 361 by a domestic corporation to a foreign corporation (sec. 367(a)(5)). Subject to regulations, this general rule does not apply if the transferor corporation is 80-percent controlled by 5 or fewer U.S. corporations.

Tainted assets

Except as provided in regulations, gain is recognized on the transfer of property falling within any of several categories of "tainted assets" (sec. 367(a)(3)(B)). The categories of tainted assets include: (1) property described in section 1221(1) or (3);[145] (2) installment obligations, accounts receivable, or similar property; (3) foreign currency or other property denominated in a foreign currency; (4) certain intangible property; and (5) property with respect to which the transferor is a lessor at the time of the transfer, except where the transferee is the lessee. Tainted assets are ineligible for the active trade or business exception. Where tainted assets and other assets are transferred to a foreign corporation for use in an active trade or business, no gain is recognized on the transfer of assets other than the tainted assets.

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[143] In general, section 368(b) defines a party to a reorganization as a corporation resulting from a reorganization, and both corporations, in the case of a reorganization resulting from the acquisition by one corporation of the stock or properties of another corporation.

[144] Under regulations, the rule for transfers of partnership interests does not apply to transfers of limited partnership interests which are regularly traded on established securities markets (Temp. Treas. Reg. sec. 1.367(a)-1T(c)(3)(C)).

Special rule for transfers of intangibles

Except as provided in regulations, a transfer described in section 351 of intangible property to a controlled corporation or in certain corporate reorganizations described in section 361 is treated as a sale (sec. 367(d)(1)). Intangible property is defined as any (1) patent, invention, formula, process, design, pattern, or know-how, (2) copyright, literary, musical, or artistic composition, (3) trademark, trade name, or brand name, (4) franchise, license, or contract, (5) method, program, system, procedure, campaign, survey, study, forecast, estimate, customer list, or technical data, or (6) any similar item, which property has substantial value independent of the services of any individual. Intangible property is ineligible for the active trade or business exception.

Upon the transfer of intangible property, the transferor is treated as receiving amounts that reasonably reflect the amounts that would have been received under an agreement providing for payments contingent on productivity, use, or disposition of the property (sec. 367(d)(2)). Amounts are treated as received over the useful life of the intangible property on an annual basis. The Code specifies that amounts taken into account by the transferor under this provision are to be commensurate with the income attributable to the transferred intangible.[146]

Earnings and profits of the transferee foreign corporation are reduced by the amount of income required to be included in income by the transferor. Any amounts included in gross income by reason of this special rule are treated as ordinary income from sources within the United States.

The disposition of (1) the transferred intangible by the transferee corporation, or (2) the transferor's interest in the transferee corporation results in recognition of U.S. source ordinary income to the original transferor (sec. 367(d)(2)(A)(ii)(II)). The amount of U.S.

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[145] Such property includes stock in trade of the taxpayer or other property of a kind that would be included in the inventory of the taxpayer if on hand at the close of the taxable year, property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business, or a copyright, a literary, musical or artistic composition, a letter or memorandum, or similar property held by a taxpayer (a) whose personal efforts created the property, (b) for whom the property was prepared or produced, or (c) in whose hands the basis of the property is determined by reference to the basis of the property in the hands of a taxpayer described in (a) or (b)) (sec. 1221(1) and (3)).

[146] This rule is consistent with the statutorily provided authority to the Treasury Secretary to distribute, apportion, or allocate items of gross income and deductions between and among related taxpayers where necessary in order to prevent evasion of taxes or to clearly reflect the income of any such taxpayer. In the case of any transfer of intangible property, the Secretary is authorized to allocate the income that is commensurate with the income attributable to the intangible. (*See* discussion of section 482 in II. E., above.)

source ordinary income depends on the value of the intangible at the time of the second transfer.

Incorporation of foreign loss branch

The transfer of the assets of a foreign branch of a U.S. taxpayer to a foreign corporation, which otherwise qualifies as a tax-free contribution to the capital of the foreign corporation or as a tax-free organization, is treated as an outbound transfer. Where a U.S. taxpayer operates through a foreign branch, losses incurred by the branch prior to its incorporation reduce the amount of the taxpayer's worldwide income that is subject to Federal income tax. After the branch is incorporated, generally, future income from the activity is not taken into account by the U.S. taxpayer until it receives dividends from the foreign corporation.

Except as provided in regulations, the active trade or business exception is inapplicable to the transfer of the assets of a foreign branch of a U.S. person to a foreign corporation in an exchange described in section 332, 351, 354, 356, or 361 (sec. 367(a)(3)(C)). In the case of such a transfer, the transferor is required to recognize gain equal to the lesser of (1) the excess of pre-incorporation losses incurred by the foreign branch with respect to which a deduction was allowed to the taxpayer over the amount of any income required to be recognized by section 904(f)(3) (discussed above) in the current taxable year (but not amounts that were simply recharacterized as U.S.-source income under section 904(f)(1)), or (2) the gain on the transfer.

In applying the rule requiring gain recognition, a pre-incorporation loss is reduced by taxable income derived by the foreign branch in a taxable year after the taxable year in which the loss was incurred and before the close of the taxable year of the transfer. The recognized gain is characterized (as ordinary income or capital gain) by reference to the character of the previously incurred losses. For example, if a branch incurred a capital loss or a foreign oil and gas extraction loss in an earlier year, its later incorporation would yield capital gain or foreign oil and gas extraction income, as the case may be.

Treatment of certain distributions by a domestic corporation

Except as provided in regulations, a liquidating distribution of appreciated property by an 80-percent-owned domestic subsidiary into its foreign parent corporation (under sec. 332) causes the distributing corporation to recognize gain (sec. 367(e)(2)). In addition, where a domestic corporation makes a distribution described in section 355 to a foreign person, gain shall be recognized by the corporation to the extent provided in regulations (sec. 367(e)(1)).

Excise tax on certain transfers not subject to section 367

A 35-percent excise tax is imposed on certain transfers of property by U.S. persons to foreign transferees that are not described in section 367 (sec. 1491)). In general, the excise tax applies to transfers of property by U.S. persons (including corporations and partnerships) to foreign corporations, foreign partnerships, and foreign estates and trusts. In the case of transfers of property to foreign corporations, the tax applies only to property treated as paid-in surplus or as a contribution to capital.

The excise tax is imposed on the amount that the fair market value of the transferred property exceeds its adjusted basis in the hands of the transferor. To the extent the transferor recognizes gain at the time of the transfer, the amount against which the tax is applied is reduced. A transferor may elect to treat a nontaxable transfer under principles similar to the principles of section 367 (sec. 1492)). If such treatment is elected, the transfer is not subject to the excise tax.

Notification requirement

A notification requirement and a set of penalties for failure to comply with that requirement exist for certain transfers to foreign persons (sec. 6038B). A U.S. person who transfers property to a foreign corporation in an exchange subject to section 367, or a domestic corporation that makes a liquidating distribution described in section 336 to a foreign person, is required to furnish to the Treasury Secretary such information with respect to the exchange as the Secretary may require, at the time and in the manner provided in regulations. If a U.S. person fails to comply with the notification requirement, there is imposed a penalty equal to 25 percent of the amount of the gain realized on the exchange, unless the failure was due to reasonable cause and not willful neglect.

4. Acquisitions of foreign corporations

In general

As a general rule, when a U.S. person acquires the stock of a foreign corporation, the underlying basis of the corporation's assets and various other tax items of the corporation (e.g., undistributed earnings and profits, creditable foreign taxes, etc.) are not affected. That is, these "tax attributes" of the corporation generally remain unchanged as a result of the change in the ownership of its stock. On the other hand, when a U.S. taxpayer acquires assets from a foreign corporation, the bases of those assets generally are adjusted to reflect amounts which represent the acquiring taxpayer's cost paid for those assets. Moreover, the acquiring corporation does not assume the other tax attributes of the foreign corporation.

Certain stock acquisitions treated as asset acquisitions

In certain cases, a corporation that is acquiring the stock of another corporation (the target corporation) may elect to treat the acquisition of the stock of the target corporation as an acquisition of the assets of the target corporation (sec. 338(a)). In such a case, the target company is treated as having sold all of its assets at the close of the acquisition date at fair market value in a single transaction and is treated as a new corporation which purchased all of the assets of the old target company as of the beginning of the first day after the date of acquisition.[147] The effect of making an elec-

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[147] In lieu of making a regular section 338 election, the purchaser and a corporate seller may agree to make an election under section 338(h)(10) with respect to the acquisition of the target

Continued

tion of this type is gain or loss recognition by the old target company of the unrealized appreciation or depreciation in its assets and fair market value basis of those assets in the hands of the new target company.

An election under section 338 may be made only with respect to a qualified stock purchase. This term means any transaction or series of transactions over a 12-month acquisition period which result in the acquisition by a corporation of at least 80 percent of the voting power and value of the outstanding stock of the target company (sec. 338(d)(3)).

As a general rule, consistency of treatment as either an asset acquisition or a stock acquisition generally is mandated for qualified stock purchases of a target company and any companies affiliated with the target company if the purchases occur during a three-year period (sec. 338(f)). Except as provided in regulations, neither stock of a foreign corporation nor stock held by a target affiliate in a foreign corporation is treated as stock of a target affiliate (sec. 338(h)(6)). Under regulations, foreign affiliates of the target company are, as a general matter, treated as affiliated companies which are subject to the consistency rule. However, the acquiring company generally is permitted to elect to exclude all foreign target affiliates from the status of target affiliate (Temp. Treas. Reg. sec. 1.338-5T(c)(2)). Thus, for example, an acquiring corporation may elect to treat the acquisition of the stock of a U.S. company as an acquisition of that company's assets and not be bound to the same treatment with respect to an acquisition of the stock of one or more foreign affiliates of the U.S. target company.

A special rule is provided for the purpose of computing the seller's foreign tax credit limitation with respect to gain recognized as a result of an election under section 338 (sec. 338(h)(16)). Under this special rule, except as provided in regulations, the deemed sale of assets resulting from a section 338 election is disregarded for purposes of determining the source or character of any item in computing the foreign tax credit. Instead, the gain generally is treated as gain from the sale of stock. The purpose of this provision is to prevent a taxpayer from using excess foreign tax credit limitation resulting from the deemed asset sale (which generally would not be taxed by a foreign country) to offset excess foreign tax credits attributable to other foreign operations of the taxpayer. An exception to this rule is provided for gain derived from the deemed sale by a U.S. corporation of stock in a controlled foreign corporation, to the extent that the gain is treated as dividend income under section 1248 (determined without regard to any deemed-sale earnings).

Limitations on the use of foreign tax credits

The 1986 Act included a provision that operates to limit the availability of a corporation's net operating loss carryovers following an ownership change of that corporation (sec. 382). In general, an ownership change occurs if the percentage of stock of the loss corporation owned by one or more 5-percent shareholders has in-

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company's stock. Under this election, the target company is treated as if it sold its assets while still a member of the selling company's consolidated group and then liquidated under section 332.

creased by more than 50 percentage points relative to the lowest percentage of stock of the corporation owned by those 5-percent shareholders at any time during the previous three-year period.[148]

As a corollary to the limitation on the ability to use net operating loss carryovers, rules were also provided in the 1986 Act that place similar limitations on other tax items which may be carried over (sec. 383). Under regulations to be prescribed by the Treasury Secretary, the amount of any excess creditable foreign taxes for any taxable year ending before the taxable year during which an ownership change occurs shall be limited in a manner consistent with the rules of section 382.

5. Special treatment of companies organized in contiguous foreign countries

Generally, an affiliated group of corporations may elect to file U.S. income tax returns and pay U.S. income tax on a group-wide (i.e., consolidated) basis (sec. 1501). An affiliated group consists of one or more chains of corporations connected through stock ownership with a common parent corporation as long as the common parent owns directly 80 percent or more of the total voting power and value of at least one of the other corporations, and 80 percent or more of the voting power and value of each of the other corporations (except the common parent) is owned directly by one or more of the other corporations (sec. 1504(a)). As a general rule, certain corporations, including foreign corporations, may not constitute part of an affiliated group of corporations (sec. 1504(b)).[149]

Under a special rule, certain foreign corporations may be treated as part of an affiliated group and join in the filing of a consolidated U.S. income tax return (sec. 1504(d)). To qualify for this rule, certain requirements must be met. First, 100 percent of the capital stock (exclusive of directors' qualifying shares) of the foreign corporation must be directly or indirectly owned or controlled by a domestic corporation. Second, the foreign corporation must be organized under the laws of a contiguous foreign country (i.e., Canada or Mexico). Third, the foreign corporation must be maintained solely for the purpose of complying with the laws of its country of organization as to title and operation of property.[150]

6. Deduction for dividends received from foreign corporations

Corporations that receive dividends from U.S. corporations generally are entitled to a deduction equal to 70 percent of the dividends received (sec. 243(a)(1)) or 100 percent where 80 percent or more of the stock of a corporation is owned by the shareholder (sec. 243(a)(2) and (3)).

Dividends received by a U.S. corporation from a foreign corporation generally are not eligible for the dividends received deduction.

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[148] A 5-percent shareholder is any person who holds five percent or more of the corporation before or after a shift of ownership of any stock of the corporation.

[149] Other corporations not includible in an affiliated group are tax-exempt corporations under section 501, insurance companies, corporations electing use of the possession tax credit, regulated investment companies, real estate investment trusts, and domestic international sales corporations.

[150] In certain instances, foreign countries may limit the ability to hold title to specified types of property to residents of that country.

However, a 70-percent dividends received deduction is available in certain cases to corporations that own, by vote and value, at least 10 percent of the stock of a foreign corporation (sec. 245(a)(1) and (2)).[151] The deduction is allowed if the foreign corporate payor earns any amount of income effectively connected with the conduct of a U.S. trade or business that is subject to U.S. tax (*i.e.*, is not treaty protected) or owns a U.S. subsidiary from which it receives dividends (sec. 245(a)(5)).[152] Dividends eligible for the deduction are based on the proportion that the foreign corporation's post-1986 earnings and profits that have been subject to U.S. corporate income tax and that have not been distributed bears to the corporation's total post-1986 accumulated earnings and profits. For this purpose, the "pooling" rules set forth in section 902 (discussed in II.C.2., above) apply to a foreign corporation's total accumulated earnings and profits and the accumulated earnings and profits that are attributable to U.S. sources. Distributions from a foreign corporation are deemed to come pro rata from the corporation's earnings that have been subject to U.S. corporate income tax and those that have not been so subject.

If a U.S. corporation is eligible to claim a deduction for dividends received from a foreign corporation, the U.S. recipient treats as U.S. source income for foreign tax credit purposes 100/70 of the amount of the dividend eligible for the dividends received deduction (sec. 861(a)(2)(B)).

7. Dual resident companies

A corporation that is created or organized in the United States or under the laws of the United States or of any State is a "U.S. corporation." The United States taxes every U.S. corporation on its worldwide income (with allowance of a foreign tax credit) and generally allows it to deduct losses wherever incurred. The United States allows U.S. corporations to file consolidated tax returns with other U.S. corporations that are commonly owned. When two or more U.S. corporations file a consolidated return, losses that one corporation incurs generally may reduce or eliminate tax on income that another corporation earns.

For tax purposes, a corporation may be at the same time a U.S. resident for U.S. purposes and a resident of another country for its income tax purposes, if the other country uses a standard other than place of incorporation to determine residency. For example, a U.S. corporation can also be a resident of the United Kingdom or Australia under their respective rules. Such companies are referred to as "dual resident companies."

If a U.S. corporation is subject to a foreign country's tax on worldwide income, or on a residence basis as opposed to a source basis, any net operating loss it incurs cannot reduce the taxable income of any other member of a U.S. affiliated group for that or any other taxable year (sec. 1503(d)). A net operating loss of such a company is referred to as a "dual consolidated loss." Where a U.S. corporation is subject to foreign tax as described above, then for U.S. purposes, its loss will be available to offset income of that corporation in other years, but not income of another U.S. corporation.

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[151] A 100-percent dividends received deduction is allowed for dividends received by a U.S. corporation from a wholly owned foreign corporation to the extent the dividends are paid out of earnings and profits of the foreign corporation for a taxable year during which it was wholly owned by the domestic corporation and all of its gross income was effectively connected with the conduct of a U.S. trade or business (sec. 245(b)).

[152] For this purpose, the foreign corporate payor must own at least 80 percent of the voting power and value of the stock of the U.S. subsidiary either directly or indirectly through a 100-percent owned foreign subsidiary.

Regulatory authority is provided to exempt a U.S. corporation from this rule to the extent that its losses do not offset the income of foreign corporations for foreign tax purposes. Under temporary regulations, the limitation on the deductibility of a dual consolidated loss does not apply if two conditions are satisfied.[153] First, there must have been at no time since 1986 any other person which, under the income tax laws of a foreign country, is permitted to use by any means the losses, expenses, or deductions of the dual resident corporation.[154] Second, under the income tax laws of the foreign country, the losses, expenses, or deductions of the dual resident company incurred after 1986 cannot be carried over or back to be used, by any means, to offset the income of any other person in other years. Where only the first requirement is satisfied, a loss of a dual resident corporation may be used to offset income of another U.S. corporation if the taxpayer agrees to amend its returns to disallow use of the loss upon later use of the dual resident company's loss by another person for foreign tax purposes, or upon another triggering event (Treas. Reg. sec. 1.1503-2T(c)(3)).

8. Related person factoring income

When a seller of goods or services takes back a receivable (a promise to pay in the future) in exchange, and then sells the receivable to a third party (a "factor") at a discount, the seller's income on the sale of the goods or services is reduced by the amount of that discount, and upon payment of the obligation, the factor realizes income equal to the difference between the amount the factor paid for the receivable and the amount received when the receivable is collected.

In most respects, a factoring transaction is a financing transaction in which the factor has assumed a loan to the obligor on the account receivable and the discount earned by the factor is functionally the equivalent of interest. Prior to 1984, however, the discount was not treated as interest.[155] Structuring a transaction as the factoring of a receivable rather than as a loan, therefore, could significantly alter the tax consequences of the transaction and, in particular, avoid the impact of anti-abuse rules of prior law.

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[153] Treas. Reg. sec. 1.1503-2T(c)(1)(i).

[154] The following situations will not constitute satisfaction of the first requirement: (1) the failure to make use of an election that would enable the other person to use the losses, expenses, or deductions of the dual resident company; (2) the fact that the income tax laws of a foreign country deny the use of losses, expenses, or deductions of its corporate residents that are also residents for tax purposes of another country to offset income of another person; (3) the fact that the other person does not have sufficient income to benefit from an offset of the losses, expenses, or deductions of the dual resident company for a particular taxable year; or (4) the fact that the dual resident company has no losses, expenses, or deductions for a particular taxable year (Treas. Reg. sec. 1.1503-2T(c)(1)(ii)).

[155] *See Elk Discount Corp. v. Commissioner,* 4 T.C. 196 (1944); Private Letter Ruling 8338043 (June 17, 1983).

For example, acquisition by a U.S.-controlled foreign corporation of a receivable arising from a sale by a U.S. taxpayer might reduce the U.S. tax base if the discount income of the foreign corporation were not treated as foreign base company income. Moreover, because factoring operations generally are easily movable, it might present an opportunity to generate low-taxed foreign source general limitation income, thereby avoiding the purposes of the separate foreign tax credit limitation applicable to interest.

Therefore, under a provision enacted in 1984, the Code for certain purposes treats income (whether in the form of discount, stated interest, or some other form) arising from a trade or service receivable acquired directly or indirectly by a foreign corporation from a related person as if it were interest on a loan to the obligor under the receivable (sec. 864(d)). The related person may be either a foreign person or a United States person. "Related person" for this purpose includes a related person as defined for the purpose of the loss disallowance or deferral rule of section 267, plus a 10-percent U.S. shareholder and any person related to a 10-percent U.S. shareholder. The related party factoring rule applies only for purposes of the foreign personal holding company rules, the subpart F rules, and the foreign tax credit limitation.

An exception to the above rule may apply if the related person that acquired the factored receivable acquires it from an entity that is organized under the laws of the same foreign country as the acquirer and that has a substantial part of its assets used in its trade or business located in that same country. This exception does not apply, however, if the person transferring the receivable would have derived any foreign base company income (determined without regard to the de minimis exception) or income that is effectively connected with a U.S. trade or business had it collected the receivable.

By virtue of its treatment as interest for purposes of the foreign tax credit limitation rules, related person factoring income is subject to the separate foreign tax credit limitation for passive income, high withholding tax interest, or financial services income. It is ineligible for any export financing interest exception to application of these separate limitations. Under subpart F, related person factoring income earned by a controlled foreign corporation does not benefit from the de minimis, export financing, or same country exceptions to the subpart F definition of foreign personal holding company income. A loan by a controlled foreign corporation for the purpose of financing the purchase of goods or services of a related party is treated like the acquisition by the foreign corporation of the purchaser's receivable. Thus, income from such loans is subpart F income without regard to the exceptions for which factoring income is ineligible, and it is subject to the separate foreign tax credit limitation for passive income without regard to the export financing exceptions for which factoring income is ineligible.

The Puerto Rico and possession tax credit (sec. 936) does not apply to factoring income unless the income from the receivable arises within the possession under the rule that treats the income as income from a loan to the obligor of the receivable.

Finally, certain factoring transactions are treated as though they were loans from a controlled foreign corporation to a related U.S.

shareholder. The definition of U.S. property (in sec. 956) includes any trade or service receivable that is the obligation of a U.S. person and that is generated by a related U.S. person's disposition of inventory or performance of services. Therefore, the U.S. shareholders of a controlled foreign corporation are currently taxable on the amount that is paid for the factored trade or service receivable (up to the amount of the controlled foreign corporation's earnings and profits).

9. Tax treatment of U.S. persons living abroad

a. General exclusion

A U.S. citizen or resident generally is taxed on his or her worldwide income, with the allowance of a foreign tax credit for foreign taxes paid on the foreign income. An individual who has his or her tax home in a foreign country and who meets either of two eligibility requirements, however, generally can elect to exclude an amount of foreign earned income from gross income (sec. 911(a)). The maximum exclusion is $70,000 per year.

An individual meeting the eligibility requirements generally may also elect to exclude (or deduct, in certain cases) certain housing costs (sec. 911(a)(2)). Housing costs available for exclusion are the excess of the individual's housing expenses for the year over an amount equal to the product of 16 percent of the daily salary of an employee of the United States who is compensated at a rate equal to the annual rate paid for step 1 of GS–14, multiplied by the number of days during the taxable year that the person meets the exclusion's qualification requirements (sec. 911(c)(1)). For this purpose, housing expenses generally are the reasonable expenses, other than deductible interest or taxes, paid or incurred during the taxable year by (or on behalf of) the individual for his or her housing (and housing of his spouse and dependents) in a foreign country (sec. 911(c)(2)).[156] Generally, the taxpayer is permitted an exclusion for the expenses of the abode that bears the closest relationship to the tax home of the individual.[157]

To qualify for the foreign earned income exclusion, an individual must satisfy either a bona fide residence test or a physical presence test.[158] Under the bona fide residence test, a citizen of the United States must establish to the satisfaction of the Secretary of the Treasury that he or she has been a bona fide resident of a foreign country for an uninterrupted period which includes an entire taxable year (sec. 911(d)(1)). In order to satisfy the physical presence test, the individual must be present overseas for 330 days out of any 12 consecutive month period (sec. 911(d)(2)). In either case, the taxpayer must have a tax home in a foreign country.[159]

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[156] Housing expenses are not considered reasonable to the extent they are lavish or extravagant under the individual's circumstances.

[157] Under a special rule, however, those expenses may also include the costs of maintaining a separate household outside of the United States for his or her spouse and dependents if that household is maintained due to dangerous, unhealthful, or otherwise adverse living conditions in the location of the household where the taxpayer resides.

[158] Note that whereas the physical presence test applies to both U.S. citizens and non-citizen U.S. residents (as defined under section 7701(b)), the statutory bona fide residence test applies only to U.S. citizens.

The combined earned income exclusion and housing amount exclusion may not exceed the taxpayer's total foreign earned income for the taxable year (sec. 911(d)(7)). Foreign earned income generally means income earned from sources outside the United States as compensation for personal services actually rendered by the taxpayer (sec. 911(d)(2)).[160]

The foreign earned income provision contains a denial of double benefits by reducing such items as the foreign tax credit by the amount attributable to excluded income (sec. 911(d)(6)).

Individuals who are present in a country with respect to which restrictions relating to travel or travel-related transactions are in effect lose certain tax benefits (sec. 911(d)(8)).[161] An individual who is present in such a country does not lose tax benefits unless that individual's engaging in travel-related transactions is in violation of law. An individual is not treated as a bona fide resident of, or as present in, a foreign country for any day during which the individual is present in a country in violation of law. Foreign earned income, otherwise eligible for the exclusion, does not include any income from sources within such a country attributable to services performed therein. Housing expenses eligible for tax benefits do not include any expenses (allocable to a period in which presence was prohibited) for housing in such a country or for housing of the spouse or dependents of the taxpayer in another country while the taxpayer is present in such a country.

b. Income from sources within U.S. possessions

The Code provides special rules for the taxation of certain persons residing in, and earning income from sources within, U.S. possessions.

Guam, American Samoa, and the Northern Mariana Islands

As a general rule, an individual who is a bona fide resident of Guam, American Samoa, or the Northern Mariana Islands is permitted to exclude from his or her gross income any income derived from sources within those possessions, as well as any income that is effectively connected with the conduct of a trade or business by that individual within those possessions (sec. 931).[162] In order to eliminate such a person's ability to receive a double benefit from this provision, neither a deduction (other than the deduction for personal exemptions) nor a credit is permitted to be taken if it is properly allocable to amounts excluded from gross income.

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[159] For this purpose, the term tax home means the taxpayer's home for purposes of determining the deductibility of traveling expenses while away from home under section 162(a)(2). A taxpayer is not treated as having a tax home in a foreign country for any period during which he has an abode in the United States (sec. 911(d)(3)).

[160] Foreign earned income does not include amounts (1) received as a pension or an annuity, (2) paid by the United States Government (or governmental agency to an employee thereof), (3) included in gross income by reason of section 402(b) (taxation of beneficiaries of nonexempt trusts) or 403(c) taxation of beneficiaries of nonqualified annuities), or (4) received after the close of the taxable year following the taxable year in which the services to which the amounts are attributable were performed (sec. 911(b)(1)(B)).

[161] For this purpose, the restrictions must have been adopted pursuant to the Trading With the Enemy Act (50 U.S.C. App. 1 et seq.), or the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.).

[162] No exclusion is permitted for amounts received for services rendered as an employee of the United States Government.

U.S. Virgin Islands

The tax code of the Virgin Islands is identical to that of the United States (i.e., a mirror code). An individual who is a U.S. citizen or resident and has Virgin Island source income or income derived from the conduct of a trade or business in the Virgin Islands for the taxable year generally is required to file income tax returns with both the United States and the Virgin Islands (sec. 932(a)). The individual's tax liability is pro-rated based on a specified formula. Under the formula, the amount of tax due to the Virgin Islands is equal to the total tax liability multiplied by the proportion of adjusted gross income from Virgin Islands sources to total adjusted gross income (sec. 932(b)). The remainder of the tax is paid to the United States.

The rule specified in the preceding paragraph does not apply to a person who is a bona fide resident of the Virgin Islands at the close of the taxable year. Such a person is required to file an income tax return with the Virgin Islands. If the return so filed reports income from all sources and identifies the source of each item shown on the return, and the full tax liability on such income is remitted to the Virgin Island Government, then gross income shown on the Virgin Islands return is excluded from gross income for purposes of computing the person's U.S. income tax liability (i.e., the person will have no gross income for U.S. tax purposes) (sec. 932(c)).

Puerto Rico

A person born in Puerto Rico is typically a U.S. citizen, and thus a U.S. person for U.S. tax purposes. The Code provides, however, that income derived from sources within Puerto Rico by an individual who is a bona fide resident of Puerto Rico during the entire taxable year generally is excluded from gross income and exempt from U.S. taxation, even if such resident is a U.S. citizen (sec. 933).[163] Such income generally is subject to taxation by Puerto Rico. In order to eliminate such a person's ability to receive a double benefit from this provision, neither a deduction (other than the deduction for personal exemptions) nor a credit is permitted to be taken if it is properly allocable to amounts excluded from gross income.

Items of income earned from sources outside of Puerto Rico by U.S. persons who reside in Puerto Rico generally are subject to U.S. taxation.

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[163] No exclusion is permitted for amounts received for services rendered as an employee of the United States Government.

H. Tax Treaties and Foreign Tax Laws

1. United States tax treaty policy

In general

In addition to the U.S. and foreign statutory rules for the taxation of foreign income of U.S. persons, bilateral treaties limit the amount of foreign tax that may be imposed by the treaty partner on U.S. residents. Treaties also supplement, to some extent, the U.S. statutory rules governing the foreign tax credit that the United States will provide to U.S. residents.[164] Reciprocally, these treaties limit the amount of U.S. tax that may be imposed on residents of the treaty partner, in addition to modifying the internal treaty country tax rules applicable to its own residents with respect to their U.S. income.

Thus, with respect to outbound investment by U.S. persons, treaties largely serve the function of modifying the tax effect of foreign statutory laws. Treaties also serve in the outbound context to ensure the creditability of taxes imposed by the treaty country where income was earned (the "source country") in computing the amount of tax owed by the U.S. resident to the United States. Treaties may also provide procedures under which inconsistent positions taken by both treaty countries with respect to a single item of income or deduction may be mutually resolved by the two countries. Although foreign laws constitute a critical component of the tax position a U.S. person with foreign income may face, comprehensive discussion of foreign internal laws generally is beyond the scope of this pamphlet. The discussion below focuses on current U.S. policy toward treaty issues that affect the foreign tax liabilities and foreign tax credits of U.S. persons.

The preferred tax treaty policies of U.S. administrations have been expressed from time to time in model treaties and agreements. In addition, the OECD has published model tax treaties. The United Nations has also published a model treaty for use between developed and developing countries. The Treasury Department, which together with the State Department is responsible for negotiating tax treaties, last published a proposed model income tax treaty in June 1981.[165] It is understood that the Treasury's current working model (that is, its current preferred income tax treaty negotiating position) includes provisions different from those in the 1981 model, in part due to the substantial changes in U.S. statutory international tax provisions since mid-1981.[166] The OECD last published a model income tax treaty in 1977 ("the OECD model").[167] The OECD model treaty is accompanied by extensive commentary, expressing views of the OECD Committee on Fiscal Affairs and, where relevant, separate views of particular member countries. In addition, the OECD Committee on Fiscal Affairs publishes from time to time more detailed reports on particular international tax issues. The United Nations last published a model income tax treaty in 1980 ("the U.N. model").

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[164] For a detailed discussion of the general legal framework within which income tax treaties operate, and their significance for the U.S. income of foreign residents, see Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS-1-90), January 23, 1990, at 43 *et seq.*

[165] The Treasury also proposed a model estate, inheritance, gift, and generation-skipping transfer tax treaty in 1980.

[166] For example, since 1986 Treasury has completed several new treaties, since ratified. In some cases they amended the existing treaties in order to conform them to the 1986 Act changes in the Code. In doing so, they necessarily departed in some ways from the 1981 model.

[167] The OECD last published a model estate, inheritance and gift tax treaty in 1983.

Treasury's model income tax treaty

The 1981 U.S. model income tax treaty contains many provisions of particular significance with respect to outbound investment.

General scope

Most of the provisions of U.S. treaties do not affect the U.S. taxation of U.S. residents, except indirectly by potentially reducing the U.S. credits that might have been associated with the foreign taxes not paid as a result of treaty benefits received by the U.S. resident from the treaty country. Under the model, the United States may tax its residents, and by reason of citizenship may tax its citizens, as if the treaty had not come into effect. Notably excepted from this savings clause are treaty benefits conferred by model treaty provisions (described below) on associated enterprises, relief from double taxation, nondiscrimination, and mutual agreement procedure.

Business profits attributable to a permanent establishment

Under the U.S. model, there is no foreign taxation of business profits of the enterprise of a qualified U.S. resident unless the enterprise carries on business within the treaty country through a permanent establishment in that country; that is, a fixed place of business through which the business of an enterprise is wholly or partly carried on.[168] The model describes in detail the characteristics relevant to determine whether something is a permanent establishment. The term includes especially a place of management, a branch, an office, a factory, a workshop, a mine, an oil or gas well, a quarry, or any other place of extraction of natural resources. The model specifies that a duration of more than twelve months is necessary before treating a building site or construction or installation project, or an installation or drilling rig or ship used for the exploration or exploitation of natural resources, as a permanent establishment (Article 5.3).

The U.N. model, by contrast, would permit the source country to treat a building site, a construction, assembly, or installation project or supervisory activities in connection therewith as a permanent establishment where the site project or activities continue for more than 6 months. It would also permit the furnishing of services within a country to be treated as a permanent establishment in that country if the activities continue (for the same or a connected project) within the country for a period or periods aggregating more than 6 months within any 12-month period.

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[168] In another context perhaps less related to issues of foreign investment by U.S. persons, the U.S. model uses a second, similar, criterion for one country's (the source country's) assertion of jurisdiction to tax income from professional services and other activities of an independent character (including especially independent scientific, literary, artistic, educational or teaching activities as well as the independent activities of physicians, lawyers, engineers, architects, dentists, and accountants) performed by a resident of the other country: namely, that the person have a "fixed base" regularly available in the source country for the purposes of performing the activities, and that the income be attributable to that fixed base.

Under the U.S. model, the term permanent establishment does not include the maintenance of a fixed place of business solely for the purpose of carrying on for the enterprise activities of a preparatory or auxiliary character. Certain activities are deemed (alone or in combination) to be of this nature: for example, the use of facilities solely for the purpose of storage, display, or delivery of goods or merchandise belonging to the enterprise; the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display, or delivery; the maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise; or the maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise, or of collecting information, for the enterprise.

Under the U.S. model, a U.S. resident is not deemed to have a permanent establishment in the treaty country merely because it carries on business in the treaty country through a broker, general commission agent, or any other agent of an independent status, provided that such persons are acting in the ordinary course of their business. The U.N. treaty would not treat as an independent agent one whose activities are devoted wholly or almost wholly on behalf of the enterprise.

Where a person to whom the foregoing U.S. model rule does not apply is acting on behalf of the U.S. resident, and has and habitually exercises in the treaty country an authority to conclude contracts in the name of the U.S. resident, and that agent's activities on behalf of the U.S. resident go beyond the scope of what the U.S. resident could itself do in the treaty country without constituting a permanent establishment, the U.S. resident is deemed to have a permanent establishment in the treaty country in respect of any activities which the agent undertakes for the U.S. resident.

The U.N. treaty would also permit the source country to treat the agent as a permanent establishment of the U.S. resident where the agent has no such authority but habitually maintains in the source country a stock of goods or merchandise from which he regularly delivers goods or merchandise on behalf of the U.S. resident. Also under the U.N. treaty, an insurance enterprise of a U.S. resident would be deemed to have a permanent establishment in the treaty country if it collected premiums in the treaty country or insured risks situated therein through a person other than an independent agent.

The U.S. model provides that the fact that a U.S. company entitled to treaty benefits controls or is controlled by a company resident in the treaty country (or carrying on business in the treaty country) does not of itself cause the company resident in the treaty country (or carrying on business in the treaty country) to be treated as a permanent establishment of the U.S. company.

The U.S. model provides that no business profits shall be attributed to a permanent establishment by reason of the mere purchase by that permanent establishment of goods or merchandise for the enterprise. This issue is expressly left open to bilateral negotiation under the U.N. model.

In addition, the U.S. model provides that the business profits to be attributed to the permanent establishment shall include only the profits derived from the assets or activities of the permanent establishment. The U.N. model adds a limited "force of attraction rule" which would also allow the country in which the permanent establishment is located to attribute to the permanent establishment sales in that country of goods or merchandise of the same or similar kind as those sold through the permanent establishment, and to attribute to the permanent establishment other business activities carried on in that country of the same or similar kind as those effected through the permanent establishment.

Where the U.S., OECD, and U.N. models expressly provide for the allocation of worldwide executive and general administrative expenses in determining business profits attributable to a permanent establishment, the U.S. model also specifies research and development expenses, interest, and other expenses incurred for the purposes of the enterprise as a whole (or the part of the enterprise that includes the permanent establishment) (Article 7.3).

Dividends and branch taxes

The U.S. model permits taxation of dividends by the residence country of the payor (sometimes referred to as the "source country"), but limits the rate of source country tax in cases where the beneficial owner of the dividends is a resident of the other treaty country.[169] In that case, the model allows not more than a 5-percent gross-basis tax if the beneficial owner is a company which owns at least 10 percent of the payor's voting stock (a "direct investor"), and in any other case (a "portfolio investor") not more than a 15-percent gross-basis tax. (Under the OECD model, the 5-percent rate is not available unless the beneficial owner of the dividends is a company other than a partnership which holds directly at least 25 percent of the capital of the dividend payor.) The term "dividend" as used in the model is limited to income from shares or other rights, not being debt-claims, participating in profits, and income from other corporate rights which is subjected by the source country to the same tax treatment as income from shares.

The U.S. model also allows for so-called "second level withholding taxes" provided that the dividends are paid out of profits attributable to a permanent establishment in the taxing country, and the gross income of the dividend payor attributable to such permanent establishment constituted at least 50 percent of the company's gross income from all sources. However, since 1986 it has apparently been the Treasury's goal to negotiate treaties allowing for a branch profits tax at a rate equal to the direct dividend withholding rate.[170] Thus, the second-level withholding provision of the 1981 model may fairly be said to be obsolete.

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[169] This limitation does not apply to dividend income attributable to a source country permanent establishment through which a resident of the other treaty country carries on business, or to income attributable to a fixed base from which a resident of the other treaty country performs independent services. In the case of such income, it would be subject to the ordinary net-basis taxation rules applicable to any other income attributable to the permanent establishment or fixed base.

The U.N. model expressly leaves to case-by-case bilateral negotiation the particular percentage limit to be imposed on source country taxation of dividends.

Interest and royalties

The U.S. model allows no tax to be imposed by a treaty country on interest or royalty income derived and beneficially owned by a resident of the other treaty country.[171] By contrast, the OECD model would permit up to 10-percent gross-basis taxation of interest by the treaty country in which the interest arises. The U.N. model expressly leaves to case-by-case bilateral negotiation the particular percentage limit to be imposed on source country taxation of interest or royalties, as it does in the case of limits on source country taxation of dividends.

The U.S. model defines interest as income from debt-claims of every kind, whether or not secured by mortgage, and whether or not carrying a right to participate in the debtor's profits. More recently signed treaties may or may not signal a change in the preferred U.S. negotiating position on the issue of whether income from a debt-claim carrying a right to participate in profits constitutes interest. For example, the 1989 German treaty provides that payments are not interest within the meaning of the treaty, and may be taxed in the source country under its internal laws, if the payments are deductible in determining the profit of the payor, and are made under arrangements, *including debt obligations*, carrying the right to participate in profits (Articles 10.5 and 11.2). The 1989 treaties with India and Finland also permit source country taxation of income from a debt-claim participating in profits, but without regard to whether those payments are deductible (Art. 10.3). On the other hand, the 1990 Spanish treaty and the 1988 Indonesian treaty follow the U.S. model definition.

The U.S. model defines royalties as payments of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic, or scientific work (not including cinematographic films or films or tapes used for radio or television broadcasting), any patent, trademark, design or model, plan, secret formula or process, or other like right or property, or for information concerning industrial, commercial or scientific experience. The term also includes gains derived from the alienation of any such right or property which are contingent on the productivity, use, or disposition thereof.

The U.S. model prohibits imposing second level withholding tax on interest (that is, taxing interest paid by a resident of the other treaty country, which interest is not received by a person subject to tax in the first country either as a resident or as a nonresident subject to net basis tax) unless the interest arises in the taxing state and is not paid to a resident of the other treaty country.[172]

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[170] *See, e.g.*, Articles IV and VIII of the 1988 U.S.-France income tax protocol, Article 10 of the Tunisian, 1989 German (not yet in force), and the 1989 Finnish treaties, Article 14 of the Indian and Spanish treaties, and Article 11 of the Indonesian treaty.

[171] As is true for dividends, this limitation does not apply to interest or royalties attributable to a source country permanent establishment through which a resident of the other treaty country carries on business, or to income attributable to a fixed base from which a resident of the other treaty country performs independent services. In the case of such income, it would be subject to the ordinary net-basis taxation rules applicable to any other income attributable to the permanent establishment or fixed base.

Other gains

Except as provided above, or in the case of real property gains, the U.S. model allows no tax to be imposed by a treaty country on gains from the alienation of personal property by a resident of the other treaty country.[173] The U.N. treaty, by contrast, also contemplates taxation by a treaty country of gains from the alienation of stock by a resident of the other treaty country when the stock represents a participation of at least a fixed percentage in a company resident in the first treaty country. The U.N. model leaves to case-by-case bilateral negotiation the relevant threshold percentage.

Shipping and air transport

The U.S. model provides that profits of an enterprise of a treaty country from the operation of ships or aircraft in international traffic shall be taxable only in that country. The U.S. model similarly provides that profits of an enterprise of a treaty country from the use, maintenance, or rental of containers used in international traffic shall be taxable only in the residence country. This treatment of container leasing income is found in neither the OECD nor the U.N. model treaty.

Other income

The U.S. model provides that items of income, wherever arising, that are not dealt with in the articles of the treaty are taxable only by the recipient's country of residence. By contrast, the U.N. model states that items of income of a resident of a treaty country not dealt with in the other treaty articles and arising in the other treaty country may also be taxed in that other country.

Relief from double taxation

The U.S. model treaty obligates the United States to allow its residents and citizens as a credit against U.S. income tax: (a) income taxes paid to the treaty country by the U.S. person, and (b) in the case of a U.S. company owning at least 10 percent of the voting stock of a company resident in the treaty country, and from which the U.S. company receives dividends, the treaty country income tax paid by the distributing company with respect to the profits out of which the dividends are paid. However, the model preserves U.S. internal law by subjecting this right to the foreign tax credit to the provisions and limitations of U.S. law as it may be amended from time to time without changing the general principle of the model provision. Further, the model states that credits allowed for treaty country taxes shall not in any taxable year exceed that proportion of the U.S. tax on income which taxable income arising in the treaty country bears to total taxable income.

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[172] This provision is obsolete with respect to the U.S. taxation of foreign residents in light of the repeal of second level withholding tax on interest in the 1986 Act, and its replacement with the branch level interest tax. However, the model definition of where interest "arises" might be relevant in any future treaties that permit (presumably, contrary to what is thought to be Treasury's currently preferred negotiating position) imposition of a branch level interest tax. For this purpose, the model treats interest as arising either in the payor's residence country, or the country in which the payor has a permanent establishment or fixed base if the indebtedness on which the interest is paid was incurred in connection with, and the interest is borne by, that permanent establishment or fixed base.

[173] As is true for dividends, interest, and royalties, this limitation does not apply to gains attributable to a source country permanent establishment through which a resident of the other treaty country carries on business, or gains attributable to a fixed base from which a resident of the other treaty country performs independent services. In the case of such gains, they would be subject to the ordinary net-basis taxation rules applicable to any other income attributable to the permanent establishment or fixed base.

Further, the model requires that for foreign tax credit purposes under the treaty, the United States must deem income taxable by the treaty country as income from sources in the treaty country. The model also provides that for this purpose the United States will deem income fully protected by the treaty from taxation by the other country as U.S. source income.

Creditable taxes

A standard article in every treaty specifies the U.S. and foreign taxes covered by the treaty. The model treaty provides that such covered taxes shall be considered income taxes for purposes of the credit article, and contemplates the possibility that such a tax might be creditable solely by reason of the treaty. The model says nothing further about the foreign taxes considered appropriate for such treatment. In practice, treaties with Norway and the United Kingdom have granted U.S. residents the right to foreign tax credits for Norwegian and U.K. petroleum revenue taxes. In other cases where such credits have been proposed in treaties, the Senate has not consented to the treaty. The Senate Foreign Relations Committee has suggested that treaties not be used in the future to handle foreign tax credit issues which can best be dealt with either legislatively or administratively.[174]

Nondiscrimination

In a departure from the scope of other provisions of the U.S. model, the model nondiscrimination clause imposes restrictions not only on foreign country taxation and U.S. Federal income taxation, but also on gift and estate tax and on all other nationally imposed taxes "of every kind and description," as well as on all taxes imposed by any state or other political subdivision or local authority thereof. The model provides that nationals of a treaty country, wherever they may reside, shall not be subjected in the other country to any taxation (or any requirement connected therewith) which is other or more burdensome than the taxation and connected requirements to which nationals of that other country in the same circumstances are or may be subjected. Similarly, the taxation of a permanent establishment which an enterprise of a treaty country resident has in the other country (the source country) generally shall not be less favorably levied in the source country than the taxation levied on enterprises of source country residents carrying on the same activities. Thus, for example, the treaty country branch of a U.S. bank generally would be entitled to treaty country tax parity with a treaty country bank. Further, an enterprise of a source country resident, the capital of which is wholly or partly owned or controlled by residents of the other country, shall not be subjected in the source country to any taxation (or any requirement connected therewith) which is other or more burdensome than the taxation and connected requirements to which other similar source country enterprises are or may be subjected. Thus, a treaty country corporation wholly owned by a U.S. resident, for example, generally would be entitled to tax parity with similarly situated treaty country corporations wholly owned by local persons. Finally, the model generally provides (subject to certain arm's length standards) that interest, royalties, and other disbursements paid by a treaty country resident to a resident of the other country shall, for the purposes of determining the taxable profits of the payor, be deductible under the same conditions as if they had been paid to a resident of the source country.

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[174] Exec. Rep. No. 98-23, 98th Cong., 2d Sess. 12 (1984).

Mutual agreement procedures

The U.S. model provides for a treaty country resident or national to obtain relief, from the competent authority of the person's home country, from actions of either or both countries that are considered to result in taxation in violation of the treaty. The model requires the competent authorities to endeavor to resolve such a case by mutual agreement where the home country authority cannot do so unilaterally.

Associated enterprises

The U.S. model permits each country to alter the distribution of profits among members of a controlled group of entities in order to reflect the conditions that would be made between independent enterprises, and to deny treaty benefits for interest and royalties passing between such members in excess of amounts that would have passed between independent entities. Where one treaty country so reallocates profits to an enterprise resident in that country, and those profits were already taxed by the other country as income of a resident of the other country, then that other country is obliged to provide to its resident an appropriate correlative adjustment to (typically, a refund of) the amount of the tax charged in the other country.

The U.S. model expressly permits application of internal law provisions which permit the distribution, apportionment, or allocation by the government of income, deductions, credits, or allowances between persons, whether or not residents of a treaty country, owned or controlled directly or indirectly by the same interests, when necessary in order to prevent evasion of taxes or clearly to reflect the income of any of such persons. This language tracks that of Code section 482 as in effect prior to the 1986 Act.

Imputation-related benefits

One provision typically sought by the Treasury in treaty negotiations is one that relates only to countries with integration of their individual and corporate tax systems. United States law generally does not, of course, provide the benefit of integration. A country that provides a tax credit to dividend recipients based on taxes paid by the dividend payor—a so-called "imputation credit"—typically will *not* provide that credit by internal law to dividend recipients who are not taxpayers in that country. When negotiating with such a country, Treasury may seek a reduction in the treaty country dividend withholding tax rate for U.S. dividend recipients below the rate in the model treaty, plus a refund by the treaty country to the U.S. dividend recipient of imputed corporate-level taxes, in excess of the otherwise applicable withholding taxes. There are no such provisions set forth, however, in the 1981 U.S. model.

The U.S. income tax treaties with the United Kingdom, Germany, and France, which have imputation credit systems, generally provide U.S. portfolio investors (i.e., noncorporate U.S. investors and U.S. companies owning less than 10 percent of the voting shares of a company resident in the treaty country) with a credit based on at least a portion of the imputation credit a U.K., German, or French resident would have received. The U.S. treaty with the United Kingdom further provides U.S. direct investors (i.e., U.S. companies owning 10 percent or more of the voting shares of a company resident in the treaty country) with a credit equal to one-half of the credit which an individual U.K. resident would be entitled to were he the recipient of the dividend. On the other hand, the U.S. income tax treaties with Canada and Finland, which countries also have imputation systems, do not allow U.S. shareholders in companies resident in those jurisdictions any portion of the imputation credit provided by those countries' statutes to domestic shareholders in domestic companies. Under present U.S. income tax treaties, no imputation system country except the United Kingdom allows U.S. *direct* investors any portion of the imputation credit provided its own residents.

Further under the U.K., French, and German treaties, the United States has agreed, in return for its residents' imputation-related foreign tax reductions, that the credit allowed to the U.S. shareholder will be an amount that generally will exceed the amount of shareholder level tax actually charged by the source country to the shareholder. Thus, in the case of a U.S. dividend recipient who would be in an excess limit position for foreign tax credit purposes even assuming the U.S. model dividend withholding rates applied, the reduction in foreign shareholder-level tax under these treaties is not matched dollar for dollar by an increase in U.S. tax through a reduction of the foreign tax credit. Instead, the United States agrees under these treaties to provide the shareholder a credit for, in effect, tax actually paid at the corporate level. In the case, for example, of the U.K. treaty, the additional U.S. foreign tax credit is based on the Advance Corporation Tax (ACT) actually paid upon a distribution. In the case of the German treaty, the additional foreign tax credit is founded on the corporate-level tax imposed under the German system: that system imposes at least a 36 percent tax on all distributed profits, either when those profits are earned by the corporation, or when a compensating tax is paid on a distribution.

Each treaty is different with respect to integration benefits for U.S. investors. The German treaty generally provides U.S. direct investors (i.e., U.S. companies owning 10 percent or more of the voting shares of a German company) no imputation benefit. The treaty provides U.S. portfolio investors in German resident companies with a benefit relative to the generally applicable 15-percent source country treaty withholding rate for dividends paid by German resident companies. For German tax purposes, the benefit amounts not to a credit or refund of German corporate tax, but a reduction of 5 percentage points (i.e., from 15 to 10 percent) in the German withholding rate. For U.S. tax purposes, the benefit amounts to a 5.88-percent gross-up in income, and a foreign tax credit equal to approximately 15 percent of the grossed up amount.

German shareholders, by contrast, receive a credit under internal German law for the full 36 percent "distribution burden" that German corporate earnings bear at the corporate level. This means that the German shareholder receives an income gross-up equal to 56.25 percent of gross dividends paid by German resident companies and a German tax credit of 36 percent of the grossed-up amount.

Under the treaty that was finally signed, then, U.S. investors in German resident companies receive the benefit of the German split rate system, but receive a smaller imputation-related benefit than German shareholders in German resident companies receive for dividends paid by the companies. As a result, U.S. shareholders may be subject to higher German corporate and personal income taxes in connection with dividends received from German resident companies than are German shareholders.[175]

Similarly, the French treaty provides no integration benefits to U.S. direct investors in French companies.[176] Indeed, under current French law corporate income bears a 34-percent tax burden which increases to 42 percent in the event the income is distributed. Thus, as compared to the tax burden on the undistributed earnings, a U.S. direct investor in a French company could be said to bear the equivalent of an additional 16.5-percent tax upon distribution of the pre-tax earnings net of the basic corporate income tax.[177] A U.S. portfolio investor, on the other hand, receives an income gross-up equal to 50 percent of gross dividends paid by a French company and a French tax credit of 33 percent of the grossed-up amount against the treaty withholding tax of 15 percent of the grossed-up amount. France is obligated under the treaty to refund the excess of the credit over the 15-percent French withholding tax liability to the U.S. shareholder.

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[175] It is worthy of note that Germany gives a form of "full integration"—that is, all corporate level taxes are creditable at the shareholder level—only part of which is accomplished by the imputation credit. The German split rate system (corporate tax rate of 50 percent on retained earnings, and 36 percent on distributed earnings) provides the remaining portion of the integration benefit, and the split rate benefits all dividend recipients—portfolio and direct—and without regard to whether they reside within, or outside of, Germany.

[176] However, a U.S. direct investor is entitled to a refund of the French precompte (if any) imposed on the dividend. The precompte is a tax imposed to insure that the French imputation system does not provide French dividend recipients credits for taxes that either were never collected or were collected over 5 years before the dividend was paid. In effect, by receiving a refund of precompte the U.S. direct investor in a French company is relieved of the burdens, as well as deprived of the benefits, of the French integration system.

[177] For example, assume a French corporation wholly owned by a U.S. corporation earns $100 of income. Assume that the French corporation would pay $34 income tax if it retained the earnings. If it distributes the earnings, they bear an additional corporate tax of $8, leaving a net amount to be distributed of $58 ($100 minus $34, minus $8). The $58 bears a 5-percent French tax, or $2.90. Total tax is therefore $44.90. Had the corporate tax rate on distributed earnings been the same as the rate on undistributed earnings, then $66 would have been available for distribution as a dividend. In order to impose a total of $44.90 on the amount of earnings distributed, France would have had to impose a $10.90 withholding tax on the dividend of $66. This would be the equivalent of a 16.5 percent withholding tax.

The U.K. treaty, like the French treaty, provides to U.S. portfolio investors the full benefit of the U.K. integration benefit allowed to U.K. individuals, less a 15-percent U.K. withholding tax liability. In addition, the U.K. treaty provides U.S. direct investors an imputation credit equal to half of the credit allowed to U.K. individuals, less a 5-percent U.K. withholding tax liability.

Departures from the model

Of the income tax treaties currently in effect, many diverge in one or more respects from the 1981 model. These divergences may reflect the age of a particular treaty or the particular balance of interests between the United States and the treaty partner.

Other countries' preferred tax treaty policies may differ from those of the United States depending on their internal tax laws and depending upon the balance of investment and trade flows between those countries and their potential treaty partners. For example, where the United States has sought to negotiate treaties that waive all source country tax on interest, royalties, and personal property rents paid to residents of the other treaty country, certain capital importing countries may be interested in imposing relatively high source country tax on such income. Consequently, treaties with such countries tend to reflect provisions found in the U.N. model treaty and not in the U.S. model. They may have higher dividend withholding rates, and non-zero interest, royalty, and personal property rental withholding rates, and may permit a building site, or construction or installation project, or mineral resources extraction site, to constitute a permanent establishment although lasting 12 months or less.

Thus, for example, the 1988 treaty with Indonesia, the 1989 treaty with India, and the 1985 treaty (modified by the 1989 protocol) with Tunisia provide for source country taxation of interest at rates generally between 10 and 15 percent, direct investment dividends at 14 or 15 percent, portfolio dividends at rates between 15 and 25 percent, and royalties at rates of 10 to 20 percent. Activities of a U.S. enterprise that last as little as 4 to 6 months in these countries may result in the enterprise being treated as having a permanent establishment under those treaties.

As another example, treaties with Australia, India, Indonesia, and New Zealand each permit a treaty country to tax the income from leasing shipping containers solely on the basis that the payor of the rent is a resident of that country. The treaty with India further provides that India may impose tax on certain types of service income paid by a resident of India that would be treated under U.S. law as income from U.S. sources, and requires that the United States allow a foreign tax credit for that Indian tax against the U.S. tax liability on that income. A number of European countries, including France, Italy, and Spain, require that their treaties permit source country taxation of at least some, if not all, types of royalty income. Treaties entered into by Canada have also tended to contain certain terms that the United States has been unable to convince Canada to conform to the U.S. model. Thus the United States has in the past been unable to obtain, for example, the preferred type of nondiscrimination clause or source country treatment of interest in its treaty with Canada.

As another example, the other country may demand other concessions in exchange for agreeing to U.S. terms. For example, in cases where a country taxes certain local business operations at a relatively low rate, or a zero rate of income tax (whether to attract manufacturing capital to that country or for other reasons), that country may seek to enter into "tax-sparing" treaties with capital exporting countries. That is, the first country may seek to enter into treaties under which the capital exporting country gives up its tax on the income of its residents derived from sources in the first country, regardless of the extent to which the source country has imposed tax with respect to that income. While other capital exporting countries have agreed to such treaties, the United States has rejected proposals by certain foreign countries to enter into such tax-sparing arrangements.[178] India, for example, sought to include a tax-sparing provision in the 1989 treaty. The treaty was concluded without such a provision, but with a provision allowing India to impose up to a 25-percent withholding tax on portfolio dividends paid by Indian companies to U.S. residents. By contrast, in a treaty with Japan, India would agree to limit its portfolio dividend withholding taxes to 15 percent in the case of Indian company dividends paid to a Japanese resident; in the same treaty, Japan agreed to provide tax-sparing credits.

Another type of departure from the model may occur because of internal tax laws (or the lack thereof) peculiar to the treaty country. Thus, the United States generally has not entered into tax treaties for the purpose of reducing U.S. source country tax on residents of countries that would impose no tax on the same income. However, if a treaty country, the internal laws of which are not otherwise unusual, gives special tax reductions in particular areas, or if the United States believes that other reasons justify a tax treaty relationship with a country imposing little or no income tax on foreign income of domestic persons (or even a country imposing little or no income tax on domestic income, in some cases), treaties may be entered into that lack one or more of the ordinary, source-country tax-reducing provisions of the model.[179]

Finally, where the import of the treaty negotiation, at least with respect to U.S. residents, is to reduce taxes imposed under a particular foreign statute, key issues for the treaty may of necessity be ones not addressed in the model. Imputation credit provisions, described above, are an example of non-model provisions that may be sought by the Treasury. Although the OECD, the U.N., and the Treasury models reflect a standardization of terms that is quite helpful, it is in the nature of a treaty's function as a bridge between two actual tax systems that at least one of the parties to the negotiations might fairly be expected to seek to diverge from the models at times, in order to account for particular features of a particular tax system.

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[178] However, the United States has represented to several countries (e.g., India and China) that should it enter into a tax-sparing treaty in the future, the U.S. tax treaties with those countries would be amended (by the usual treaty procedures) to provide tax-sparing benefits.

[179] See, e.g., the Bermuda treaty and the 1988 statutory provision (section 6139 of the 1988 Act) addressing the status of the insurance premium excise tax clause in the Barbados treaty. *See also* Exec. Rep. 100-23, 100th Cong, 2d Sess. 4 (1988) ("the [Foreign Relations] Committee believes the insurance excise tax provision should not have been entered into between the United States and Barbados. Accordingly, it has asked for and has received firm commitments from the Treasury and State Departments to renegotiate the Barbados treaty to eliminate its waiver of U.S. insurance excise tax by the earliest date permissible under the treaty, January 1, 1990.")

2. Income tax rules mandated by the European Economic Community

Overview

Twelve European countries compose three Communities—the European Coal and Steel Community (established in 1952), the European Economic Community (EEC) (1958) and the European Atomic Energy Community (1958)—known as the European Communities, or EC. The twelve member states (in the approximate order of their joining) are Belgium, France, Germany, Italy, Luxembourg, the Netherlands, the United Kingdom, Ireland, Denmark, Greece, Spain, and Portugal.

The implementation under the Single European Act of an "internal market," that is, "an area without internal frontiers in which the free movement of goods, persons, services, and capital is ensured" before 1993 (so-called "EC 92"), generally has not involved, to date, requirements to adopt or amend income tax laws of the member states, except as discussed below. For many years, certain income tax issues have been the subject of discussion within the organs of the EC. In July 1990, these culminated in adoption of two "directives" by the legislative body of the EC, the Council.[180] One directive deals with parent-subsidiary dividend taxation,[181] and the other with mergers.[182] A treaty among the member states requiring arbitration of transfer pricing issues between competent authorities of member states was also adopted in July 1990.[183] In April 1990, the executive branch of the EC, the Commission of the European Communities, issued a document disclosing guidelines that it intends to follow, both before and after completion of the internal market, for dealing with other proposals on company taxation.[184]

Following is a brief discussion of these income tax-related developments. Discussion of measures relating to the EC value-added tax is not within the scope of this pamphlet.

Parent-subsidiary directive

The parent-subsidiary directive generally requires that each EC member amend its internal laws so that profits which a subsidiary distributes to its parent company will be exempt from withholding tax, at least where the latter holds a minimum of 25 percent of the capital of the subsidiary. In addition, the directive requires the state of the parent company to provide relief from double taxation of the subsidiary's profits.

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[180] Issuance of a directive is one type of official act of the Council. (Other types of issuances of the Council and the Commission of the European Communities are regulations, decisions, recommendations, and opinions). A directive is binding on the member states to which it is addressed as regards the results to be achieved, but leaves the form and methods of achieving it to the discretion of the national authorities.

[181] 90/435/EEC.

[182] 90/434/EEC.

[183] 90/436/EEC.

[184] SEC (90) 601 final.

Currently, a tax treaty may achieve a better result for the taxpayer than merely absence of withholding, by providing for source country refunds of subsidiary-level taxes upon a distribution.[185] Member states are not required under the directive to provide such refunds.

The directive does not preclude the application of domestic or agreement-based provisions required for the prevention of fraud or abuse. The directive only applies to companies that are subject to tax in their home country. Conforming internal laws generally must be in force before January 1, 1992. However, the Directive permits delayed conformity in the case of German and Portuguese withholding taxes. Moreover, the directive permits Greece to impose withholding tax on profit distributions to parent companies of other member states, so long as Greece does not charge corporation tax on distributed profits, and so long as the rate of withholding does not exceed the rate provided for in bilateral double-taxation agreements.

The effect of the parent-subsidiary directive, then, is to decrease foreign taxes on the movement of earnings (or capital) within cross-border affiliated groups, just as the distribution of profits within a U.S. consolidated group is not a taxable dividend. If the cross-border affiliated group is controlled by a U.S. corporation, the dividends may constitute foreign personal holding company income, resulting in U.S. inclusion under subpart F (as discussed in II.B2. above). In that case, any potential U.S. tax on the inclusion would be offset by the foreign corporate taxes paid at the subsidiary level.

Directive on mergers

The directive on mergers generally requires that by January 1, 1992, members will bring into force rules for the treatment of mergers, divisions, transfers of assets, and exchanges of shares in which taxable companies from two or more member states are involved. As described below, the directive requires nonrecognition treatment of certain types of corporate or shareholder level gains that are realized in these transactions.[186]

Under the directive, a merger, division, or transfer of assets must not result in tax on the corporate-level appreciation in asset value, except to the extent of basis step-up, if any, applied for future tax purposes. Similar nonrecognition treatment must be applied to the shareholder-level appreciation of the transferor's stock. This shareholder-level nonrecognition also applies to an exchange of shares as defined in the directive. If the transferee holds more than 25 percent of the stock of the transferor, there is to be no tax imposed on gains from the cancellation of those holdings. Thus, for example, on a liquidation into a corporate parent and redemption of the stock in the subsidiary, the directive requires nonrecognition of the parent's stock gain.

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[185] *E.g.*, the U.S.-U.K. treaty that requires the United Kingdom to refund to the U.S. parent of a U.K. subsidiary one-half the Advance Corporation Tax (ACT) paid in connection with the dividend, less a 5-percent withholding tax on the grossed-up dividend.

[186] A merger under the directive includes both a transfer by one corporation (the transferor) of all of its assets and liabilities to another corporation (the transferee), in exchange for receipt by shareholders of the transferor of stock in the transferee (or stock and cash—"boot"—up to 10 percent of the value of the stock); and complete liquidation of a wholly-owned subsidiary into its corporate parent. A division is a transfer of all of the transferor's assets and liabilities to *more than* one corporation, again in exchange for the receipt by the transferor's shareholders of transferee stock plus up to 10 percent boot. A transfer of assets is limited to a transfer by one corporation of one or more branches of activity to another corporation in exchange for stock of the transferee. An exchange of shares is an acquisition by one corporation of a majority of the voting rights in another by exchanging stock of the acquirer (plus up to 10 percent boot) for stock of the target.

If the transferee maintains a permanent establishment in the transferor's country, that country is obligated to permit carryforwards of losses of the transferor against the income of the permanent establishment to the same extent as a local transferee company would be permitted such carryforwards. If the transfer of a third member country permanent establishment (i.e., a permanent establishment situated in a member state which is neither the country of the transferor nor the country of the transferee) is involved in a merger, division, or transfer of assets, then the member state of the transferor may impose tax on the gains of the permanent establishment from the transaction only if it gives relief for the tax that, but for the provisions of the directive, would have been charged on those profits or capital gains in the member state in which the permanent establishment is situated.

The directive provides that a member state may refuse to apply, or withdraw the benefit of, all or any part of the tax rules required by the directive where it appears that the merger, division, transfer of assets, or exchange of shares has as one of its principal objectives tax evasion or tax avoidance. The absence of valid commercial reasons such as the restructuring or rationalization of the activities of the companies participating in the transaction may constitute a presumption that the transaction has tax evasion or avoidance as one of its principal objectives. A member may also refuse tax treatment under the directive if the transaction results in a company no longer fulfilling necessary conditions for the representation of employees on company organs according to the arrangements which were in force prior to that operation.

Arbitration convention

The arbitration convention is similar to those portions of bilateral income tax treaties (including U.S. treaties) that govern related company pricing between two entities each resident in one of the treaty countries (the "Associated Enterprises" article described in II.H.1., above) and that govern the mutual resolution, by the competent authorities of the treaty countries, of individual claims of double taxation (the "Mutual Agreement Procedure" article described in II.H.1., above). Unlike any U.S. treaty, however, the arbitration convention adds a requirement of arbitration in transfer pricing cases that the competent authorities do not resolve between themselves within a fixed period, and that result in the assertion by each state of a right to tax the same income.[187] Under the convention, competent authorities of member states are required to submit unresolved differences to an advisory commission. If within 6 months of the issuance of an opinion by the advisory commission the two competent authorities still cannot agree on a resolution to the issue, the advisory commission's opinion becomes binding.

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[187] The 1989 U.S.-German treaty creates a voluntary arbitration procedure. There is no *compulsion* to submit competent authority cases to arbitration under any U.S. treaty.

Guidelines on company taxation

First, the guidelines state that member states should remain free to determine their tax arrangements, except where these would lead to major distortions.[188] The Commission does not plan to present any general company tax harmonization proposals until after further study. It recommends stepped up consultations between those responsible for taxation policy in the member states, and the creation of a committee of independent experts for this purpose.[189]

Second, the guidelines express a view that implementation of an internal market makes it desirable to eliminate obstacles to transnational companies and transfrontier activities within the EC. For this reason, the guidelines urge on the Council prompt adoption of the parent-subsidiary directive, the merger directive, and the arbitration convention. Further, the guidelines state that in the near future the Commission will submit for Council approval additional proposed directives requiring member states to permit the use of certain foreign losses against domestic income, and requiring the abolition of withholding taxes on intra-group interest and royalty payments.

The guidelines include a further set of recommendations, with similar ends and also for implementation as soon as possible. First, the guidelines propose a Commission study of member rules on transfer pricing, with a view to making them more uniform. Second, the guidelines state that member states should examine their tax incentive legislation to ensure that incentives applied are more "transparent" and less complicated. As an example, the guidelines state that incentives in the form of base reductions could be converted into tax credits or rate reductions. Third, the guidelines emphasize that in the absence of Community legislation, individual member states should design internal tax rules in conformity with their multilateral EC treaty obligations to the other members, for example by adhering to the principle of equality of treatment.

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[188] The guidelines point out that competition between different countries already constitutes a powerful stimulus to corporate tax harmonization. The guidelines identify both positive and negative results of this competition. On the one hand, tax reform stimulated by recent U.S. and U.K. efforts is viewed as beneficial. The guidelines suggest that other types of competition could be counterproductive: "[A]ny attempt by member states to outbid each other too much in cutting company taxation would not be without its problems, whether in terms of loss of resources for national budgets or of equity as regards its impact on the distribution of the tax budget within each member state between the various taxes and charges."

[189] According to the guidelines, the questions to be answered by the committee would be:

(a) Do the disparities which exist between corporation taxes and the tax burdens on companies from one member state to the next induce distortions in investment decisions affecting the functioning of the internal market?

(b) If so, can those distortions be eliminated simply through the interplay of market forces and competition between national tax systems or are Community measures required?

(c) Should any action at Community level concentrate on one or more elements of company taxation, namely the different corporation tax systems, the differences in tax treatment associated with the legal status of companies, the tax base or rates? and

(d) Should any measures envisaged lead to harmonization, approximation or the straightforward establishment of a framework for national taxation? What would be the effect of such measures or the absence of such measures on Community objectives such as cohesion, environmental protection and fair treatment of small and medium-sized firms?

III. ANALYSIS OF ISSUES RELATING TO INTERNATIONAL TAXATION AND THE LOCATION OF INVESTMENT

A. Overview

International investment plays an important role in determining the total amount of worldwide income as well as the distribution of income across nations. In addition, international investment flows can substantially influence the distribution of capital and labor income within nations. Because each government levies taxes by its own method and at its own rates, the resulting system of international taxation can distort investment and contribute to reductions in worldwide economic welfare. A government's tax policies affect the distribution of income directly, by collecting tax from foreigners earning income within its borders and from residents earning income overseas, and indirectly by inducing capital movements across national borders.[190]

The next three subsections discuss in sequence the economic and distributional effects of international investment flows in a world with no taxes, in a world with equal taxes, and finally in a world with unequal taxes. Subsection B examines the relatively simple case of international investment in a world without taxation. In this case, each government (independent of the actions of other governments) can pursue both worldwide interests and national interests simultaneously. To maximize economic welfare, no government would restrict or subsidize the free flow of capital. Besides increasing wealth, the free flow of capital can also result in a redistribution of income between capital and labor. In particular, labor in the capital-importing countries benefits at the expense of labor in the capital-exporting countries.

Subsection C begins by examining the economics of capital flows when income taxes are imposed at equal rates on all income no matter the source. With taxation, it is not necessarily the case that each government can pursue maximum national economic welfare and maximum worldwide economic welfare simultaneously. With these goals now potentially inconsistent, a country undertaking policies consistent with worldwide economic welfare may not be promoting its own national interest. Although detrimental to worldwide economic welfare, the national interest could in some degree be furthered by subsidizing domestic investment and discouraging outbound investment. It is in this context that subsection C introduces the concept known as national neutrality. Under a system of national neutrality, a government taxes outbound investment by its residents more heavily than domestic investment, in order to redirect capital investment to domestic locations, and therefore maximize domestic economic income. This concept is inappropriately labeled "neutrality" since it is deliberately non-neutral in its disincentives for outbound investment, which are intended to maximize domestic income.[191]

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[190] For a general discussion of the economic effects of U.S. tax rules, see Part One of this pamphlet. For a discussion of the economic effects of U.S. taxation with particular focus on the rules affecting inbound investment, see Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS–1–90), January 23, 1990, at 55 et seq.

Subsection D further relaxes the assumption that taxes are imposed at the same rate on all income. With unequal taxation, it is much more difficult to determine the design of a tax system which best promotes worldwide economic welfare. At this juncture, the concepts of capital export neutrality and capital import neutrality are introduced.

Subsections E and F discuss policy issues in the context of current law provisions that affect the location of investment. With regard to the relative treatment of domestic and outbound investment, many provisions work at cross purposes. Some provisions of current law favor outbound investment, while others discourage it. No overall policy goal toward outbound investment is readily discernible. As a whole, the U.S. system of taxation is a hybrid containing elements consistent with both capital import neutrality and capital export neutrality.

B. The Location of Investment Without Taxation

Maximizing income

Just as free international markets for goods and services result in beneficial "gains from trade," the free flow of funds in capital markets also promotes worldwide economic welfare. U.S. citizens and corporations may invest directly in overseas operations over which they exercise substantial control, or they may invest indirectly in securities and other financial instruments in which they generally are passive investors. Similarly, foreign residents and corporations invest directly in U.S. operations or indirectly by purchase of a wide variety of U.S. financial instruments, such as bank deposits, government bonds, and securities of private corporations.

In general, investors seek to place their funds in projects with the highest risk-adjusted rate of return, regardless of location. If this were not the case, capital markets would inefficiently allocate capital by not matching savings with the most productive investments, and economic welfare would suffer. Any impediments to the free flow of capital generally reduce worldwide economic welfare. For example, if there were no international capital flows, and the U.S. rate of return were 10 percent while the rate of return in the rest of the world were 8 percent, the opening of international capital markets would reallocate capital from abroad to the United States, and the United States would become a net capital importer. Worldwide welfare would improve because foreign investors would now export funds in order to reallocate capital from lower-return foreign investment projects to more productive investment opportunities in the United States.

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[191] This nonneutrality is only the case, however, if revenue from taxation is not used for the direct benefit of the taxpayer (i.e., it is not a fee for government services rendered). Section III.E.7., below, discusses in more detail the implications of such "benefit taxation."

To maximize worldwide economic welfare, government policies should not interfere with the free flow of traded goods or of traded capital.[192] For this reason, tariffs on imported goods and restrictions on inflows of capital are widely recognized as policies reducing worldwide economic welfare, although they can certainly increase the income of particular domestic producers or particular domestic investors. However, it is not the case that all policies that increase international trade and capital flows increase economic welfare. Export subsidies may increase international trade, and they may indeed produce economic benefits for the favored industries and their consumers, but they are also likely to reduce worldwide economic welfare. Similarly, policies to promote outbound investment in excess of free-market levels result in a misallocation of capital that reduces worldwide output and income. If capital is perfectly mobile, investors will equalize rates of return for all investments worldwide. If the United States subsidized outbound investment by its residents and corporations, the underlying (before-subsidy) rate of return on outbound investment would fall below that on investment in the United States. In this case, from the standpoint of promoting worldwide efficiency, too much capital would be located outside the United States.

The distribution of income between capital and labor

The location of investment has important implications for the distribution of income. In general, increased capital formation increases the productivity of labor. With more output per worker, labor income (including wages and other forms of compensation) increases. Any reallocation of investment from the United States to foreign localities, for whatever reason, will reduce the productivity of U.S. workers and therefore their compensation. The remaining smaller pool of capital in the United States will receive a higher rate of return as investors drop the least profitable investment projects.

It is important to note that despite the decline in wages resulting from the reallocation of capital, an increase in overall income may nonetheless occur. A situation of unrestricted capital flows is considered optimal because it maximizes total income. If total national income increases due to the freedom of capital flows, and an outflow of capital reduces domestic wages, then the increase in capital income necessarily exceeds the decline in wages.[193]

Similarly, any increase in inbound investment into the United States increases the productivity of U.S. workers and their income.[194] Increased investment by foreign persons in the United

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[192] When conditions approximating "perfect competition" are not present, it may be advantageous for a particular country to distort free trade. For example, the government of a nation with a competitive domestic sector and dominant in a particular natural resource can nationalize its resources and raise the worldwide price to monopoly levels. Alternatively, the government can leave the industry competitive, and extract monopoly profits by raising taxes on the natural resource. Under certain conditions, "strategic trade policy" (described below) could increase national welfare by distorting free trade.

[193] If capital income constitutes a larger share of upper-income household incomes, then relocation of investment abroad will also increase inequality across income classes.

[194] This point has been stressed by the Bush Administration, which has opposed restrictions on investment by foreigners in the United States:

Continued

States also reduces the return on capital in the United States. If capital inflows are the result of free-market policies, they increase national welfare. However, as in the case of outbound investment, not all sectors of the economy will necessarily be better off.

The effect of outbound investment on domestic investment

A critical factor in determining the effects of international capital flows on the distribution of income is whether domestic saving increases in response to the availability of outbound investment opportunities. If outbound investment does not reduce domestic investment, then outbound investment will not reduce labor income (although by increasing returns on capital it may reduce labor's share of income). However, if outbound investment results in a reduction of the U.S. capital stock, labor income will also decline. The importance of one's assumption about the effect of outbound investment on domestic savings can hardly be overemphasized. Many conclusions and policy prescriptions derived from the theory of international taxation depend on this assumption.[195] Unfortunately, little empirical research has been undertaken to determine the direct effect of investment overseas by U.S. investors on U.S. savings and on investment in the United States.

One way that outbound investment can affect domestic investment is illustrated by the case of a "runaway plant." The term "runaway plant" usually refers to the relocation to a foreign country of a U.S. production facility owned by U.S. persons. Even if this phenomenon is observed, it does not necessarily lead to the conclusion that U.S. investors collectively reduce investment in the United States by the amount of the outbound investment or by any other amount. Facilities which had been located in the United States may have been substantially funded by domestic debt and now could be funded by foreign debt. If this were the case, outbound investment may make available domestic debt capital for other investments in the United States. Similarly, unemployed workers and other resources made available as a result of the plant relocation may provide new investment opportunities for other domestic investors. Therefore, if a U.S. plant does relocate, it is uncertain how much (or, strictly speaking, whether) U.S. investment has declined by virtue of that fact. If lower rate financing and inexpensive labor become available as a result of outbound investment,

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> The unhindered flow of foreign direct investment leads to additional productive resources in the United States and facilitates the realization of cost efficient scales of business by consolidating under one corporate roof separate, but related, operations. These boost the productivity and international competitiveness of the United States, create jobs, and promote innovation and productivity. The inflow of capital helps to sustain U.S. investment despite the current low U.S. national saving rate, and thus contributes to economic growth.
>
> When U.S. multinational firms first set up in Europe during the 1950s and 1960s, many Europeans feared that Europe was being bought out by Americans and that their economies were being Americanized. U.S. direct investment has benefited the European economy. The recent increase in foreign direct investment in the United States will similarly benefit the U.S. economy.

Council of Economic Advisors, *Economic Report of the President*, Washington: U.S. Government Printing Office, 1991, p. 258.

[195] As explained in more detail below, if domestic investment does not decline as a result of increased outbound investment, then the relevance of national neutrality is greatly diminished, and capital import neutrality becomes a more attractive policy goal relative to capital export neutrality.

runaway plants conceivably might not reduce U.S. domestic investment. However, it is unclear to what extent these newly available resources might increase domestic investment.

An indication of the effect of outbound investment on domestic investment may be available in the evidence of the responsiveness of domestic saving to changes in domestic rates of return. For example, if domestic saving is not responsive to changes in domestic rates of return, then domestic saving may be similarly unresponsive to changes in rates of return on outbound investment. However, there is no conclusive evidence on the responsiveness of saving to changes in rates of return.[196]

C. The Location of Investment with Equal Tax Rates

If all investors face the same overall rate of tax on capital income, regardless of their residence or the source of their income, the allocation of capital across national borders generally will not be distorted. Although investors receive lower returns as a result of taxation, the rates of return on investments across countries relative to each other are not affected. As in the case of free trade and no taxes, worldwide economic welfare is promoted by international investment. However, unlike the case of a world with no taxes, despite the worldwide increase in welfare, one country *may* be worse off as the result of international capital movements.

The wedge between promotion of worldwide welfare and national economic welfare occurs because taxation of international investment redistributes income across national jurisdictions. The net benefit to each country depends on whether tax is collected by the country where the investment is located ("source taxation") or the country of residence of the investor ("residence taxation").

The upper panel of Figure 1 displays a system of international taxation in which tax rates on income earned by *all* capital—of residents of all countries no matter where their investment is located—is taxed at the same rate. In this situation, total neutrality prevails in the capital markets. Capital flows freely to its most efficient uses, and investors from different countries with businesses located in and competing in the same market pay the same rate of tax. This system allows capital to flow freely and maximizes worldwide income.

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[196] Substantial disagreement exists among economists as to whether taxpayers will respond to increases in net return on savings by increasing or reducing their saving. Some studies have argued that theoretically one should expect substantial increases in saving from increases in the net return. Other studies have argued that, theoretically, large behavioral responses to changes in the after-tax rate of return need not occur. Empirical investigation of the responsiveness of personal saving to after-tax returns provides no conclusive results. Some studies find personal saving responds strongly to increase in the net return, while others find little or a negative response. For a discussion of the determinants of the rate of saving, see Joint Committee on Taxation, *Present Law, Proposals, and Issues Relating to Individual Retirement Arrangements and Other Savings Incentives* (JCS-11-90), March 26, 1990; and Joint Committee on Taxation, *Description and Analysis of S. 612 (Savings and Investment Incentive Act of 1991)* (JCS-5-91), May 14, 1991.

Figure 1

A. Total Neutrality

Domestic and foreign investor face same tax rate no matter where investment is located.

		LOCATION OF INVESTMENT	
		Domestic	Foreign
RESIDENCE OF INVESTOR	Domestic	Tax Income at Uniform Rate	Tax Income at Uniform Rate
	Foreign	Tax Income at Uniform Rate	Tax Income at Uniform Rate

B. National Neutrality (with no retaliation)

Domestic investor subject to the domestic tax rate on domestic investment. Domestic investor subject to foreign tax equal to tax on domestic investment plus an extra layer of domestic tax. Foreign investment income subject to foreign tax rate regardless of the residence of the taxpayer.

		LOCATION OF INVESTMENT	
		Domestic	Foreign
RESIDENCE OF INVESTOR	Domestic	Tax Income at Uniform Rate	Tax Income at Uniform Rate Plus Extra Domestic Tax
	Foreign	Tax Income at Uniform Rate	Tax Income at Uniform Rate

If taxes are the same around the world, total neutrality may result from several different international tax arrangements. First, total neutrality will result if each country imposes a purely residence-based tax (arrangement 1). In that case, each country taxes all income of its residents no matter where earned, but does not tax income of foreigners earned within its borders. Alternatively, total neutrality will result under an exemption system where each country taxes all income earned within its borders regardless of the residence of the investor earning that income, and no country taxes income from outbound investment of its residents (arrangement 2a). Finally, total neutrality will result if each country imposes tax on the worldwide income of its residents but allows credits for taxes paid to foreign governments, and each country also imposes tax on all income earned by foreigners within its borders (arrangement 2b).

Although all of these systems maximize worldwide income through total neutrality, and each of these systems collect the same amount of *total* tax, the choice among these systems greatly affects the distribution of tax revenue across countries. Under a purely residence-based system (1 above), governments collect tax revenue on income from outbound investment and collect no tax on income on inbound investment. Under a territorial system (2a above) or a worldwide/source system with credits (2b above), governments collect tax on income from inbound investment and no tax on income from outbound investment. Thus, a capital exporting country may find a residence system more beneficial, while a capital importing country may find a territorial or a worldwide/source system with credits more beneficial.

Since nations usually reserve to themselves primary taxing jurisdiction over income from investments located within their borders, it is important to focus on the welfare implications of taxation by nations in which the investment is located. If countries generally impose tax on income arising from within their borders (without regard to the residence of the recipient), the movement of investment—whether foreign or domestically owned—from a foreign to a domestic location, can increase national income by the amount of tax collected. However, with equal rates of tax worldwide, the taxpayer is indifferent as to which country collects the tax.

These principles can be illustrated by a simple example. Assume the rate of return is 10 percent in the United States and 12 percent in France. With no taxes, worldwide economic welfare, as well as the economic welfare of each nation, is promoted by the United States exporting some capital to France. By relocating a $100 investment, U.S. investors receive $12 where they had previously received $10. Suppose, in addition, that each nation imposes a 30-percent income tax. It is still in a U.S. investor's interest to seek the relatively more profitable investment opportunities in France, and worldwide efficiency is still promoted by free flows of international capital. Furthermore, if effective tax rates are equal around the world, the U.S. investor is indifferent to whether governments impose source or residence taxation. However, those governments are not indifferent. Whether source or residence taxation prevails is of major importance to the distribution of income across nations. In this example, even though the French rate of return is higher, if

France taxes income at the source, U.S. national income is reduced by investment in France. For the relocation of $100 of investment abroad, the United States as a whole now only receives $8.40 of income (after a 30-percent French tax amounting to $3.60) while the U.S. would have received $10 ($7 of after-tax return plus $3 of U.S. tax) for investment located in the United States. National income of the United States is reduced by $1.60 as a result of the relocation of $100 of investment.[197]

National neutrality through deductions instead of credits for foreign taxes

As just explained, because countries typically tax income arising within their borders, a nation can increase its income through policies that reduce outbound investment by its residents and encourage inbound investment by foreigners. This is the case even if net outbound investment is driven below the level that would prevail in a free and efficient international capital market. In contrast to the case of a world with no taxes, promoting national economic interest does not coincide with promoting worldwide economic income. Furthermore, in a world of source taxation, the national interest and the interests of outbound investors do not coincide.

To further its national interest, a government can reduce outbound investment by reducing the after-tax rate of return on outbound investment and driving its before-tax return above that on domestic investment. It can penalize outbound investment by imposing a layer of taxation in addition to foreign taxation at source. Outbound investment is only in the national interest if the return *after foreign tax* (but before domestic tax) equals the before-tax return on domestic investment. This condition is achieved when a capital exporting nation, in response to foreign source taxation, does not cede taxing jurisdiction over foreign source income (for example, through a foreign tax credit) and allows only a deduction for foreign taxes.[198]

The policy of allowing only deductions for foreign taxes is sometimes known as "national neutrality." A deduction penalizes outbound investment and aligns the interests of the taxpayer with the interests of its home country—but only at the expense of reduced worldwide economic welfare. As discussed below, the current U.S. tax system, with limited creditability of foreign taxes and deferral of U.S. tax on unrepatriated foreign earnings, is considerably more generous to taxpayers than current taxation of foreign income and deductibility of foreign taxes consistent with national neutrality.

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[197] Many authors have discussed these types of welfare effects on taxation. See, for example, Michael J. Boskin, "Tax Policy and the International Location of Investment," in Martin Feldstein (ed.) *Taxes and Capital Formation*, Chicago: University of Chicago Press, 1987, p. 79:

> [D]omestic welfare falls when U.S. firms substitute [outbound investment] for investment at home, because the nation receives only the net-of-foreign-tax return (and only when it is repatriated) rather than the gross return. These welfare effects are augmented by the beneficial effects on labor productivity of greater foreign or direct investment in the United States. Thus, a reduction in taxation of new corporate investment improves welfare through three channels: the standard mechanism, through which the lowering of the marginal tax rate generates new domestic investment opportunities for U.S. firms; a reallocation of the location of investment by U.S. firms toward home and away from abroad; and an increase in [inbound investment by foreign investors.]

[198] Several authors provide a description of how deductions for foreign taxes maximize domestic welfare of a capital-exporting country. See Richard E. Caves, *Multinational Enterprises and Economic Analysis*, Cambridge, England: Cambridge University Press, 1982, pp. 229-231; and Peggy B. Musgrave, *United States Taxation of Foreign Investment Income: Issues and Arguments*, Cambridge, Massachusetts: International Tax Program, Harvard Law School, 1969, p. 134.

Despite the potential to maximize national welfare, self-interested nations generally do not adopt tax systems designed to achieve national neutrality. There are at least three possible explanations for this. First, there is reason to expect that one nation's unilateral attempt to improve its own welfare through a policy of national neutrality would meet with retaliation by other nations with similar policies that, in turn, even further would reduce worldwide income.[199] If, on the other hand nations can coordinate their tax policies, a tax system can be designed to increase worldwide income above the inefficient level produced by national neutrality. With international coordination, there is potential for adopting a system in which worldwide income could be maximized (and, if necessary, redistributed) so all nations could be better off.

Second, the disincentives to outbound investment embodied in the concept of national neutrality only increase national welfare if outbound investment increases at the expense of domestic investment. If the economy responds to increased outbound investment with increased domestic saving instead of reduced domestic investment, policies to discourage outbound investment may have little positive effect on domestic labor and, furthermore, may reduce national welfare in addition to worldwide welfare.

Third, even if the first two rebuttals to national neutrality do not hold, there is some evidence that outbound investment increases exports by more than it increases imports. This increase in net exports may provide benefits to domestic labor and increase overall domestic income. If this is the case, policies discouraging outbound investment could increase the merchandise trade deficit and reduce national output.[200]

D. The Location of Investment with Unequal Tax Rates

If tax rates are not equal across national jurisdictions, taxes have the potential not only to redistribute income across nations, but also to distort investment decisions in a manner that reduces worldwide economic welfare. The nature of these distortions depends on the method of taxing income from international investment. If investment income is taxed only at the source, substantial amounts of capital could be diverted to jurisdictions with the lowest tax rates instead of flowing to investment projects with the highest pre-tax rate of return. If a system of residence taxation is the worldwide norm, enterprises resident in low-tax countries might be able to attract more investment capital or perhaps increase their market share through lower prices to the detriment of enterprises resident in high-tax jurisdictions, even though the latter are more efficient. In either case, capital is diverted from its more productive uses, and worldwide income and efficiency suffer. The most straightforward solution to this problem is equalization of effective tax rates, but this may not be a practical solution given differences in national preferences for the amount and method of taxation. There is no consensus on what method of taxing international investment income minimizes distortions in the allocation of capital when nations tax income at different effective rates, but the alternatives of capital export neutrality and capital import neutrality are the most cited guiding principles. These two standards are each desirable goals of international tax policy. The problem is that with unequal tax rates these two goals are not mutually attainable.

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[199] In the context of international trade, policies that attempt to promote domestic economic welfare at the expense of the rest of the world are referred to as "beggar-thy-neighbor" policies.

Capital export neutrality refers to a system where an investor residing in a particular locality can locate investment anywhere in the world and pay the same tax. Capital import neutrality refers to a system of international taxation where income from investment located in each country is taxed at the same rate regardless of the residence of the investor. Figure 2 below, compares capital import neutrality with capital export neutrality. Tax rates are always equal for *investors* residing in the same country under capital export neutrality. Tax rates are always equal for *investments* located in the same country under capital import neutrality.

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[200] For a discussion of the positive effects of outbound U.S. investment, see Council of Economic Advisers, *Economic Report of the President*, Washington, D.C.: U.S. Government Printing Office, February 1991, pp. 258–261.The discussion on outbound investment concludes (p. 259): "On a net basis, it is highly doubtful that U.S. direct investment abroad reduces U.S. exports or displaces U.S. jobs." There is no definitive conclusion about the effect of outbound investment on U.S. employment. For a brief review of the literature, see C. Fred Bergsten, Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests*, Washington, D.C.: Brookings Institution, 1978, pp. 102–4.

Figure 2

A. Capital Export Neutrality

Domestic investor faces domestic tax rate no matter where investment is located. Foreign investor faces foreign tax rate no matter where investment is located.

		LOCATION OF INVESTMENT	
		Domestic	Foreign
RESIDENCE OF INVESTOR	Domestic	Tax Income at Domestic Rate	Tax Income at Domestic Rate
	Foreign	Tax Income at Foreign Rate	Tax Income at Foreign Rate

B. Capital Import Neutrality

Domestic investment income subject to the domestic tax rate regardless of the residence of the taxpayer. Foreign investment income subject to foreign tax rate regardless of the residence of the taxpayer.

		LOCATION OF INVESTMENT	
		Domestic	Foreign
RESIDENCE OF INVESTOR	Domestic	Tax Income at Domestic Rate	Tax Income at Foreign Rate
	Foreign	Tax Income at Domestic Rate	Tax Income at Foreign Rate

Under capital export neutrality, decisions on the location of investment are not distorted by taxes. Capital export neutrality is a principle describing how investors pay tax, not to whom they pay. Unlike national neutrality (described above), capital export neutrality primarily is a framework for discussing the efficiency and incentives faced by private investors, and not the distribution of the revenues and benefits of international investment. Tax systems, including that of the United States, may adhere to the principle of capital export neutrality by taxing worldwide income and granting credits for income and profits taxes paid to foreign governments. (As discussed in more detail below, current U.S. law would have to be amended so that deferral was repealed and the foreign tax credit was not subject to any limitations and was fully refundable in order to more closely achieve capital export neutrality.) As an alternative to the system of foreign tax credits, capital export neutrality could be achieved with the source country relinquishing its jurisdiction to tax income derived from investments within its borders and allowing the country of residence the exclusive right to tax this income.

Under capital import neutrality, capital income from all businesses operating in any one locality is subject to uniform taxation. The nationality of investors in a particular locality will not affect the rate of tax. Capital import neutrality may be achieved by the residence country exempting income earned from foreign jurisdictions entirely from tax and allowing the source country's taxation to be the only taxation on the income of international investors. This is commonly referred to as a "territorial" or an "exemption" system of international taxation.

The distribution of income between capital and labor

Although they have important implications for national welfare as well as the distribution of income between capital and labor, the debate on the relative merits of capital export neutrality and capital import neutrality centers on which of these more efficiently allocates capital around the world and therefore on which better promotes worldwide economic welfare. Before exploring the relative efficiency of capital import and capital export neutrality, however, it is useful to examine the distributional effects of each, and in this context, to examine how the concepts of capital export neutrality and capital import neutrality compare with the principle of national neutrality.

One argument in favor of capital export neutrality is that it promotes horizontal equity. Under capital export neutrality, two investors with identical income would be taxed equally regardless of the location of their investment. Capital import neutrality would reduce income tax on income from outbound investment below the level of tax on domestic investment income, and on average capital income would be treated more favorably than income from other sources. National neutrality, on the other hand, would increase taxes on income from outbound investment. It would also reduce the pre-tax rate of return on saving by foreclosing investment opportunities abroad.

It is not surprising, therefore, that business interests have consistently supported capital import neutrality and opposed both capital export neutrality and national neutrality. Indeed business interests may go even further and support bilateral treaty-based reductions of source country tax which result not simply in neutrality across all investors in a particular country, but preferential tax results for U.S. investors. Business interests have stressed that capital import neutrality is in the national interest on the grounds that U.S.-owned businesses located abroad may not be able to compete in overseas locations if they are subject to U.S. tax in addition to local tax.[201] Congress referred to such concerns in rejecting the President's proposal to eliminate all deferral in the Revenue Act of 1962.[202] Carried to its logical conclusion, however, the approach advocated by some would relinquish to foreign governments control over the U.S. tax treatment of outbound investment by Americans. For example, if an industrialized country offers tax-sparing incentives for investment by its residents in a developing country, the United States would have to match those incentives in order to implement this policy.

Although it is not certain that labor income declines as a result of outbound investment (e.g., it will not decline if there is no reduction in U.S. investment), labor unions have been the leading proponents of national neutrality. Reducing the flow of capital from the United States to foreign countries could increase employment in the United States and the wages of U.S. workers. It is not surprising that labor unions in the early 1970s were the strongest supporters of the Burke-Hartke bills, which would have repealed the foreign tax credit and eliminated deferral.[203] In 1975, the Senate voted to repeal deferral but this provision was eliminated in conference.[204]

Strategic trade policy and capital import neutrality

Another possible argument for capital import neutrality comes from recent literature on international trade. Strategic trade theory abandons the traditional assumption of perfect competition and provides a framework for maximizing national economic welfare in the presence of oligopolistic markets. According to strategic trade theory, and contrary to the traditional theory of free trade, it may be in the national interest to subsidize certain industries if firms in these industries inevitably will exercise considerable market power. In this case, subsidies can hasten the development of domestic industry which can prevent exploitation by foreign oligopolists. A capital import neutral tax policy is one method of providing such a subsidy to the outbound investing sector of the U.S. economy.

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[201] Arguments for capital import neutrality may be found in Norman B. Ture, "Taxing Foreign Source Income: The Economic and Equity Issues," New York: Tax Foundation, 1976; Arthur Young & Company, "The Competitive Burden: Tax Treatment of U.S. Multinationals," Tax Foundation Special Report, Washington D.C.: Tax Foundation, undated (circa. 1988); and William P. McLure and Herman B. Bouma, "The Taxation of Foreign Source Income From 1909 to 1989: How A Tilted Playing Field Developed," *Tax Notes*, June 12, 1989, pp. 1379–1410.

[202] "Testimony in hearings before [the House Committee on Ways and Means] suggested . . . that to impose the U.S. tax currently on the U.S. shareholders of American-owned businesses operating abroad would place such firms at a disadvantage with other firms located in the same areas not subject to U.S. tax." H.R. Rep. No. 1447, 87th Cong., 2d Sess. 57–58 (1962).

[203] See, for example, the statement of then AFL-CIO President George Meany:

> [T]hese provisions [i.e. deferral and the foreign tax credit] have also encouraged and subsidized the export of American jobs, technology, and production facilities. They have contributed substantially to the Nation's problems in international trade and investment, to inflation, raw materials shortages, and helped to undermine America's industrial base while making America increasingly vulnerable to economic blackmail.

Public Hearings Before the Committee on Way and Means on the Subject of Tax Reform, Part 1 of 5, 94th Cong., 1st Sess., July 8–11, 1975, p. 845.

[204] See H.R. Rep. No. 94-120, 94th Cong., 1st Sess. 69–70 (1975).

It is not clear that strategic trade policy would achieve greater national welfare than free trade policy.[205] Furthermore, even if a government chose to implement strategic trade policy, *and* it chose to implement this policy through the tax system, presumably it would not provide tax subsidies solely for outbound investing sectors of the U.S. economy. Instead, strategic trade policy implemented through the tax system would presumably provide tax incentives to all domestic import-competing sectors and domestic export sectors.

Which principle better promotes worldwide efficiency?

In a world of unequal taxes, where it is not possible to achieve both capital export neutrality and capital import neutrality, which is preferable from the perspective of worldwide efficiency? No consensus exists. The Treasury Department has been a proponent of capital export neutrality. In a study on tax reform issued at the outset of 1977, the Treasury Department favored the concept of capital export neutrality in the particular form of residence-based taxation:

> A number of considerations point to the residence principle as the more desirable principle to establish. First, the concept of income as consumption plus change in net worth implies that attribution of income by source is inappropriate. Income, by this definition, is an attribute of individuals, not of places. Second, if owners of factor services are much less mobile internationally than the factor services they supply, variations among countries in taxes imposed by residence will have smaller allocation effects than tax variations among places of factor employment. Third, the income redistribution objective manifested by the use of progressive income taxes implies that a country should impose taxes on the entire income of residents.[206]

Explicitly comparing it with capital import neutrality and national neutrality, the Administration reaffirmed its support of the principle of capital export neutrality in its 1985 Tax Reform proposals:

> In reaching the decision to continue the worldwide taxation of U.S. taxpayers with allowance of foreign tax credits, the Administration considered and rejected the alternatives of exempting foreign source income from U.S. tax, or taxing foreign source income but only allowing a deduction for foreign taxes. While an exemption approach would in some circumstances facilitate overseas competition by U.S. business with competitors from countries that tax for-

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[205] See Daniel J. Frisch, "The Economics of International Tax Policy: Some Old and New Approaches," *Tax Notes*, April 30, 1990, p. 584.

[206] U.S. Treasury Department, *Blueprints for Basic Tax Reform* 99 (January 17, 1977).

> eign income on a favored basis, such an approach also would favor foreign over U.S. investment in any case where the foreign country's effective tax rate was less than that of the United States. Moreover, there would be a strong incentive to engage in offshore tax haven activity. The long-standing position of the United States that, as the country of residence, it has the right to tax worldwide income is considered appropriate to promote tax neutrality in investment decisions. Exempting foreign income from tax would favor outbound investment at the expense of U.S. investment. The other alternative, to allow only a deduction for foreign taxes, would not satisfy the objective of avoiding double taxation. Nor would it promote tax neutrality; it would be a serious disincentive to make outbound investments in countries where there is any foreign income tax.[207]

The literature on the theory of international taxation provides no clear direction as to the better of the two principles. Although there are advocates for capital export neutrality (usually among policymakers [208] and economists) and for capital import neutrality (usually among representatives of business interests), it is sometimes unclear whether authors consider capital export neutrality superior to capital import neutrality since the two principles are frequently not explicitly compared. For example, authors usually agree that ideally both capital import neutrality and capital export neutrality are desirable, but then they must also acknowledge that when tax rates are not equal across national jurisdictions, these two principles are not mutually attainable. The authors then usually leave the reader with little guidance as to their preference. This is the case with Hufbauer and Foster who argue alternately in favor of capital export neutrality and capital import neutrality:

> A regime of capital-export neutrality . . . would . . . encourage U.S. firms to locate their facilities wherever pre-tax returns promised to be greater. . . . Tax considerations would play no role in investment decisions, pre-tax returns on U.S. investments of equivalent risk would ultimately be equalized around the world, and the United States capital stock would be allocated in a manner designed to maximize world production.
>
> * * *
>
> Capital-import neutrality is sometimes called "competitive" neutrality because firms of diverse origin compete on an equal tax basis in any particular country and industry. Because tax considerations do not distort competition, capital-import neutrality promotes the most efficient use of resources between firms in that country and industry.[209]

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[207] *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity*, 383 (May 1985).

[208] For a recent endorsement of capital export neutrality by the Treasury Department, see Prepared Statement of Kenneth W. Gideon, Assistant Secretary for Tax Policy, Department of the Treasury, in *Pending Bilateral Tax Treaties and OECD Tax Convention: Hearing before the Senate Comm. on Foreign Relations*, 101st Cong., 2d Sess. 8, 11 (1990).

[209] Gary Hufbauer and David Foster, "U.S. Taxation of the Undistributed Income of Controlled Foreign Corporations", in Department of the Treasury, *Essays in International Taxation: 1976*, at 14-15 (footnote omitted).

Other analyses of international taxation are also unclear on this point. Bergsten, Horst, and Moran discuss both concepts, but offer no strong endorsement of either principle, although they do note that "investment decisions will be distorted unless capital export neutrality prevails." [210] Caves favors neither principle, but does point out that the superiority of one principle over the other depends on the responsiveness of saving.[211] Slemrod favors capital export neutrality as the better policy objective, but also notes that this conclusion does not take into account that capital export neutrality may distort business decisions on where to incorporate and investors' decisions on where to reside.[212]

Peggy Musgrave and Thomas Horst are the only two authors who have explicitly attempted to ascertain the relative efficiency of capital export neutrality and capital import neutrality.[213] Horst's analysis explores the relative merits of capital import neutrality and capital export neutrality by focusing on the response of domestic savings to increased outbound investment opportunities. A central tenet of his analysis is that worldwide efficiency suffers under a system of capital export neutrality if domestic savings is responsive to changes in taxes, and that worldwide efficiency suffers under capital import neutrality if savings is fixed. However, as will be discussed in the following section, the relative merits of capital export neutrality and capital import neutrality can be better understood in a framework broader than that of Horst's model.

The effect of alternative policies on the two distortions to saving and investment

It is perhaps easiest to understand the competing objectives of capital export neutrality and capital import neutrality by recognizing that there are two types of potential distortions to saving and investment. The first is a distortion in the *level* of overall saving. The second is a distortion in the *allocation* of saving among alternative investments. Capital export neutrality promotes the efficient allocation of savings by taxing all capital income at an equal rate regardless of the source. If the rate of domestic saving is inefficiently low, capital import neutrality promotes efficiency by reducing the tax burden on savings and thereby providing an incentive to increase the level of savings. However, since it provides incentive only for saving that produces foreign source income, capital import neutrality distorts the allocation of savings. Therefore, a tax rate on outbound investment lower than the tax rate on domestic investment can only increase economic welfare if the improvement in efficiency from the increase in saving is greater than the reduction in efficiency from the misallocation of savings.

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[210] C. Fred Bergsten, Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests* 177 (1978).

[211] Richard E. Caves, *Multinational Enterprise and Economic Analysis*, Chapter 8 (1982).

[212] Joel Slemrod, "Competitive Advantage and the Optimal Tax Treatment of the Foreign Source Income of Multinational: The Case of the U.S. and Japan," paper prepared for the Conference on International Tax Policy, sponsored by the American College of Tax Counsel and ALI-ABA, April 20-21, 1990, Washington D.C. p. 10.

[213] Peggy B. Musgrave, *United States Taxation of Foreign Investment Income: Issues and Arguments*, Cambridge, Massachusetts: International Tax Program, Harvard Law School, 1969; and Thomas Horst, "A Note on the Optimal Taxation of International Investment Income," *Quarterly Journal of Economics*, Vol. 93, June, 1980, pp. 793-8. Horst notes that his analysis is a mathematical formalization of Musgrave's earlier work.

A policy that reduces all tax rates (applied to domestic and foreign source income equally) is superior to a policy of equal revenue cost that reduces tax rates only on foreign source income. With a broad reduction in rates, there is a comparable increase in the rate of saving with no distortion of the allocation of capital. For example, a $10 billion across-the-board reduction in tax rates on all capital income (i.e., income from both domestic and outbound investment) is more efficient than a $10 billion reduction in tax rates only for outbound investment. However, if tax rates on domestic source capital income are for some reason fixed,[214] a policy of reducing taxes only on foreign source income would be the only method of increasing saving. While such a targeted rate reduction is clearly less desirable, it still might improve economic efficiency. However, even if it is desirable to reduce capital income taxes and the only way to do so is by reducing taxes on foreign source income, strong economic assumptions are required for capital import neutrality to be a desirable policy objective. If the foreign country in which domestic funds are invested taxes all income generated within its borders at the same rate, capital import neutrality would require a U.S. tax rate of zero on foreign source income. Only if the outbound investment encouraged by a reduction in taxes on foreign source income has no effect on domestic investment, and it is assumed that tax rates on domestic investment cannot be altered, will capital import neutrality maximize worldwide efficiency.[215] Hence, the economic arguments favoring capital import neutrality are considerably more tenuous than those in support of capital export neutrality.

E. Departures from Capital Export Neutrality in Current U.S. Tax Rules

A government can implement capital export neutrality by taxing worldwide income of its residents but also allowing credits for taxes paid to foreign governments. Alternatively, a government can implement national neutrality by replacing credits with deductions for foreign taxes. Finally, a government can implement capital import neutrality by exempting all foreign source income from tax. Since national neutrality is less generous to taxpayers than capital export neutrality, deviations from capital export neutrality that increase tax on foreign income move the U.S. system closer to a system of national neutrality. Conversely, since capital import neutrality is often more generous to taxpayers than capital export neutrality, deviations from capital export neutrality that decrease tax on foreign income move the U.S. system closer to a system of capital import neutrality.

1. Foreign tax credit limitation

In general

For taxpayers in an excess foreign tax credit position (that is, taxpayers with creditable foreign taxes in excess of the foreign tax credit limitation), tightening limitations on the foreign tax credit may, when foreign laws are taken into account and are assumed not to change as a result of the tightening, result in discouraging outbound investment and encouraging domestic investment. In order for a credit system of foreign taxation to be fully consistent with capital export neutrality where it is assumed that no changes in source country law are possible, unlimited credits for foreign tax payments against residence country tax liability would have to be available to taxpayers in their country of residence. This would include a grant by the residence country to the taxpayer of the amount, if any, by which such source country tax exceeds residence country tax. In other words, for a credit system of outbound taxation to be fully capital-export neutral, the residence country must be willing to relinquish tax jurisdiction over domestic income.

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[214] This is implicitly assumed in Horst, *supra*.

[215] *See* Horst, *supra*.

It is important to recognize that when the foreign tax credit limitation is binding, the disincentive to outbound investment results primarily from foreign effective rates of tax in excess of the domestic rate. The only "fault" of the foreign tax credit limitation in the context of capital export neutrality is that subsidies are not provided in the form of foreign tax credits in excess of domestic tax liability. The reduced availability of foreign tax credits may, however, be accompanied by reductions in effective foreign tax rates.

In 1921, three years after the foreign tax credit was first made available to U.S. taxpayers, the credit was limited to the amount of tax that would be paid at domestic rates on foreign source income computed under U.S. tax rules. Taxpayers in an "excess limit" position (that is, taxpayers with foreign tax credit limitation in excess of creditable taxes) have no incentive to reduce their foreign taxes, and foreign governments have no inducement to lower their income taxes on income earned by those U.S. taxpayers. Without the credit limitation, there would be no reasonable bound on the potential transfer of funds from the U.S. Treasury to foreign governments. To the extent of U.S. tax liability (before foreign tax credits), the level of foreign taxation would be a matter of indifference to the U.S. investor since increased foreign taxes effectively would be paid by the U.S. Treasury.[216] The foreign tax credit limitation is thus among the most important of a variety of revenue protection features of the U.S. system of international taxation. To the extent that U.S. tax rates fall relative to foreign tax rates, the importance of the foreign tax credit limitation increases.

The sourcing of income and expenses

Source rules allocate gross income and deductions between domestic source income and foreign source income. The determination of foreign source taxable income is central to calculation of the foreign tax credit limitation. Reductions in the foreign tax credit limitation increase U.S. tax on excess credit taxpayers, on whom the limitation is binding. A shift in the source of income from foreign to U.S. may increase U.S. tax by decreasing the foreign tax credit limitation. A shift in the allocation of expenses from U.S. to foreign source income decreases foreign source taxable income. This reduction, then, may also increase U.S. tax by reducing the foreign tax credit limitation. For excess credit taxpayers, any tightening of the foreign tax credit limitation further heightens the negative effect of high foreign taxes on outbound investment.[217]

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[216] In this case, the only limitation would be that foreign tax credits cannot exceed U.S. tax liability.

An asserted difficulty arising in the application of the source rules is a lack of coordination across national jurisdictions. There are disputes about which accounting or transfer pricing methods may result in the proper allocation of expenses between jurisdictions. There is general agreement, however, that certain expenses incurred by a parent corporation may also benefit subsidiaries and branches of the firm in all jurisdictions. Therefore it generally is agreed that, for purposes of income measurement, these expenses—such as research, administrative, and interest costs—should be allocated in part to foreign source income even though they are incurred for activities undertaken in the jurisdiction of the parent. However, if the expenses of producing foreign source income through such U.S. activities are not taken into account as deductions by the source country, or are not taken into account by the source country to the same extent as they are in the United States, net worldwide tax on foreign source income of an excess credit U.S. taxpayer is increased. Therefore, tightening of expense allocation rules, in combination with high foreign effective tax rates, caused in this case by foreign tax laws disallowing a deduction for such expenses, can be expected to reduce outbound investment of U.S. multinational corporations.

In order to obtain deductibility of these expenses under foreign income tax laws, U.S. multinational corporations could relocate some of their activities in order to incur expenses in the foreign jurisdiction to which their expenses would be allocated under U.S. law. For example, assume research expenses incurred in the United States would be allocated to foreign source income under U.S. law, but those expenses produce less favorable tax results in the source jurisdiction than would expenses for undertaking the same activities in the source country. In this case, the distinctions in U.S. and foreign law between the treatment of expenses for domestic versus foreign-based activities may be an incentive to relocate research activities overseas.[218]

Interest deductions raise analogous issues. For example, absent a requirement to apportion interest expense on a group-wide basis, a taxpayer that incurs high foreign taxes may find it advantageous artificially to shift interest deductions to U.S. source income, thus overstating its foreign source taxable income for U.S. tax purposes. Under present law, on the other hand, there is an incentive to replace domestic debt with foreign debt to obtain the deduction under foreign tax law.[219] Ultimately, the behavior of the taxpayer is directed toward placing pressure on the foreign tax system to reduce the taxpayer's effective rate of foreign tax, rather than placing pressure on the U.S. fisc by requiring it to cushion the adverse effects of high effective foreign tax rates. On the other hand, some have argued that the interest allocation rules, considered apart from other sourcing, credit, and deferral rules, result in understatement of foreign source taxable income by precluding full worldwide fungibility among commonly controlled domestic *and foreign* subsidiaries.

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[217] One group of authors likens tightening of expense allocation rules to a negative investment tax credit on outbound investment. *See* C. Fred Bergsten, Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests* 207 (1978).

[218] A 1983 Treasury Department study estimated that relaxation of research allocation rules (i.e., permitting taxpayers to allocate more research expense to U.S. source income) would increase domestic research by between $0.17 and $2.60 per dollar of revenue loss. As an incentive for research, tax benefits from relaxation of research allocation rules may be criticized as being less efficient than the research tax credit and concentrated among a relatively small number of large taxpayers. See Department of the Treasury, *The Impact of Section 861-8 Regulation on U.S. Research and Development*, June, 1983.

[219] See Joseph L. Andrus, Robert H. Dilworth, and Jeffrey M. O'Donnell, "U.S. Tax Considerations in Financing Foreign Subsidiaries," *Taxes*, October, 1990, p. 686.

2. Incentive for outbound investment: Cross-crediting of foreign taxes

In its 1984 tax reform proposals, the Treasury Department proposed a per-country foreign tax credit limitation to replace the overall limitation which provided "many taxpayers a tax motivated incentive to invest abroad rather than in the United States." [220] This tax reform proposal addressed the use of high foreign taxes imposed by one country (i.e., taxes in excess of the U.S. rate) to offset U.S. tax on income earned by the same U.S. taxpayer in a low-tax country. This is sometimes referred to as "averaging" or "cross-crediting."

The creation of new separate foreign tax credit baskets in the final version of the 1986 Act reduced in a different way the ability on U.S. taxpayers to average foreign tax liability on highly taxed foreign income against the foreign tax liability on lightly taxed income. For example, the passive income basket included in the 1986 Act reduced more effectively than its predecessor—the separate interest basket (former sec. 904(d)(2))—the incentive for U.S. taxpayers with excess foreign tax credits to reallocate funds from domestic uses to portfolio investments in low-tax countries. With an ability to "cross-credit" between taxes on active and passive income, a corporate taxpayer paying, for example, 44-percent tax on $100 of active income from one country would be able to make investments yielding $100 in another jurisdiction with a tax rate as high as 24 percent on investment income, and be subject only to foreign tax. The taxpayer in this instance has a tax incentive to invest abroad since his marginal rate of tax is 24 percent on outbound investment compared to 34 percent on domestic investment. Separate basketing requires an additional 10 percent of U.S. tax to be paid on this outbound investment.

In terms of the principles discussed above, limiting the ability to cross-credit moves the tax treatment of the marginal outbound investment by a U.S. investor away from capital import neutrality and toward capital export neutrality. On the other hand, under current U.S. law, taxpayers may cross-credit high foreign taxes paid to one country against U.S. tax on similar types of income earned in other low-tax foreign countries. Some may argue that complete elimination of cross-crediting is undesirable for administrative reasons, quite apart from issues of capital import and export neutrality. For example, substantial administrative issues could arise in the allocation and apportionment of foreign income of an integrated multinational business among separate foreign countries in which operations take place. Some of the separate foreign tax credit limitation rules of current law also create what some regard as undue complexity.

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[220] U.S. Treasury Department, *Tax Reform for Simplicity, Fairness, and Economic Growth*, Vol. 2, 1984, p. 361.

3. Incentive for outbound investment: Deferral

Income from outbound investments earned by the separately incorporated foreign subsidiaries of U.S. corporations generally is not subject to tax until that income is repatriated. However, income from foreign branches of U.S. corporations must be included in current taxable income. The majority of foreign business activity controlled by U.S. corporations is conducted by separate foreign corporations as opposed to branches. In 1984, controlled foreign corporations of U.S. multinationals had $48.1 billion of earnings and profits and paid $20.6 billion of foreign income taxes. Foreign branches of U.S. multinationals had $14.6 billion of branch income and paid $5.1 billion of foreign income taxes.[221]

If for a particular taxpayer the effective rate of foreign tax can be expected to be consistently above the U.S. rate, deferral of U.S. taxes would not provide any tax benefit. However, if the effective rate of foreign tax is at any time or in any jurisdiction below the U.S. rate, U.S. multinationals may enjoy two substantial benefits from deferral. First, deferral may delay the payment of U.S. taxes on foreign source income until earnings are repatriated. Second, because excess foreign tax credits cannot be carried forward indefinitely, deferral expands the opportunity for cross-crediting (if effective foreign tax rates vary across years or across jurisdictions) by not deeming high foreign taxes to be paid until a year when the U.S. taxpayer chooses also to repatriate low-taxed foreign source income.[222] When U.S. taxes are not paid as the income is earned, the taxpayer effectively is granted an interest free loan each year on tax that would have been due.[223] At the time of his choosing, the taxpayer repays these loans when he decides to repatriate earnings, and they become subject to tax.[224] This is similar in many respects to the benefit enjoyed from delaying realizations of capital gains. As with capital gains, one method of eliminating the tax benefit of deferral is the payment of taxes on income as it is earned, rather than when payment is received. This is achieved, in limited circumstances, by the various anti-deferral regimes in the Code.

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[221] Timothy J. Goodspeed and Daniel J. Frisch, "U.S. Tax Policy and the Overseas Activities of U.S. Multinational Corporations: A Quantitative Assessment," Manuscript, July 1989, Tables 2 and 3. Losses generated by foreign operations generally are usable against U.S. tax liability only if the operations take the form of a branch of a U.S. company. Thus, the above figure for foreign branch income may reflect a disproportionate share of such operations.

[222] This second benefit is in some degree limited by the less generous foreign tax credit carryover periods (back 2 years and forward 5 years) as compared to the net operating loss carryover periods (back 3 years and forward 15 years). For example, when a U.S. source loss for a year in which foreign source income is earned renders the crediting of foreign tax paid or deemed paid in that year unnecessary, the effect of the foreign income and taxes is to convert a loss, usable over the next 15 years, into a credit carryforward, usable only over the next 5 years. Thus, while deferral makes it possible for the taxpayer to choose the year in which the tax will be deemed paid, the reduced carryforward period prevents the taxpayer from also enjoying the flexibility to use its excess credits over the full 15 years accorded to losses.

[223] Some studies have demonstrated that, in theory, if foreign investment is financed out of retained earnings, then only the source country's tax rate affects the incentive to invest and the length of deferral does not affect the effective marginal tax rate. See, for example, David G. Hartman, "Tax Policy and Foreign Direct Investment in the United States," *National Tax Journal*, Vol. 37, 1984, pp. 475-87. In the Hartman framework, investment from retained earnings is tax-advantaged; however, this is inconsistent with the observed simultaneous repatriation and transfer of funds overseas by U.S. multinational businesses.

[224] The benefit of deferral is larger the greater the excess of the U.S. over the foreign tax rate and the longer the period of time between the time income is earned and the time of actual repatriation.

Another possible taxpayer benefit from deferral is the gain that a U.S. company may obtain from taking an aggressive position on transfer prices between itself and a foreign subsidiary. Moreover, the benefit may be further enhanced if foreign government restrictions on transactions between related companies can be used to defend those positions.[225] Without deferral, on the other hand, transfer pricing issues may have little or no impact on the inclusion of income on the U.S. return. (They may still, however, have an impact on whether income is sourced as foreign or domestic.) Not only is the taxpayer's benefit in this case offset by the government's loss of revenue, but in addition, the government may suffer a further cost in sheer administrative effort required to dispute the taxpayer's transfer prices.

On the other hand, deferral imposes costs on taxpayers, in addition to requiring them to bear their own share of the administrative burden of dealing with transfer pricing issues. For example, subpart F, and its interactions with the credit rules and the other anti-deferral rules, are considered highly complex.[226] In addition, the interest allocation rules, by precluding full worldwide fungibility of interest among commonly controlled domestic *and foreign* subsidiaries, may impose costs on a U.S. corporation that operates through foreign subsidiaries, which costs might be avoided by operating through foreign branches of a U.S. corporation.

To the extent that deferral continues to provide an advantage to outbound investment, this advantage provides an incentive for outbound investment and therefore moves the U.S. system of taxation of foreign income closer to capital import neutrality and away from capital export neutrality. Deferral provides an incentive for outbound investment, but restrictions on deferral negate this incentive.[227] Although the original 1962 Administration proposals to eliminate all deferral were more sweeping, and the subpart F rules as finally enacted were meant to serve primarily as revenue protection measures—like the foreign personal holding company rules—by preventing foreign operations from serving as potential shelters from U.S. taxation, it seems clear that the incentive effects of deferral on outbound investment were understood at the time.[228].

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[225] *Cf. Comm'r v. First Security Bank of Utah*, 405 U.S. 394 (1972), discussed above at II.E.2.

[226] *E.g.*, Tillinghast, *International Tax Simplification*, 8 Am. J. Tax Policy 187, 190 (1990).

[227] For a more detailed discussion of the economic effects of deferral, *see* Gary Hufbauer and David Foster, "U.S. Taxation of the Undistributed Income of Controlled Foreign Corporations," in Department of the Treasury, *Essays in International Taxation: 1976*.

[228] The Kennedy Administration's explanation of the proposed anti-deferral rules includes several references to their effect on the location of investment:

> Certainly since the postwar reconstruction of Europe and Japan has been completed, there are no longer any foreign policy reasons for providing tax incentives for foreign investment in economically advanced countries.
>
> . . . While the rate of expansion of some American business operations abroad may be reduced through the withdrawal of tax deferral such reduction would be consistent with

Continued

The 1962 legislation provided a special exception to the subpart F rules for earnings from investments in less developed countries in order to increase the economic development of those countries through increased U.S. investment.[229]

4. Incentive for outbound investment: Creditability of subnational foreign taxes

Under current law, taxes paid by U.S. businesses to foreign governments that are by their nature taxes on income or profits, such as a corporate income tax, are fully creditable (within the foreign tax credit limitation) against Federal income taxes. This applies whether or not the tax is imposed by the national government or by a subnational government of that foreign country. However, income taxes paid by U.S. businesses to the States or to other subnational governments within the United States are only deductible against Federal income tax. Depending upon the rates of U.S. and foreign national and subnational taxes, this disparity in treatment of subnational taxes can create an incentive to invest overseas. This is the case when the foreign tax credit limitation is not binding and the overall (i.e., national and subnational combined) level of foreign income tax is lower than the level of U.S. Federal and local income tax.

To illustrate this point, assume that an investor can earn $100 before both national and local taxes from either a domestic or outbound investment, and that the rate of U.S. Federal income tax is 34 percent and the foreign national rate is 20 percent. Before taking into account other, subnational taxes, the U.S. taxpayer would earn $66 after-tax from either domestic or outbound investment. In the case of outbound investment, the investor pays $20 of tax to the foreign government and $14 (after foreign tax credits) to the U.S. government. Now assume that subnational governments in both the United States and the foreign jurisdiction impose a 10-percent income tax. On domestic investment, the investor pays $30.60 of Federal tax (0.34 times $90) and $10 of subnational income tax, resulting in an effective rate of tax of 40.6 percent and leaving the investor with $59.40 after tax. On outbound investment, the investor pays $18 of tax to the foreign national government and $10 to the foreign subnational government. Because the total foreign tax paid does not exceed the foreign tax credit limitation, all the foreign taxes are creditable. The taxpayer owes $6 to the U.S. government and is left with $66 after tax.

In this respect, the tax advantages of outbound investment could be eliminated by either of two policy changes. First, the United

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> the efficient distribution of capital resources in the world, our balance of payments needs, and fairness to competing firms located in their own country.
>
> . . . I recommend that tax deferral be continued for income from investment in developing economies. The free world has a strong obligation to assist in the development of these economies, and private investment has an important contribution to make. Continued tax deferral for these areas will be helpful in this respect. In addition, the proposed elimination of income tax deferral on U.S. earnings in industrialized countries should enhance the relative attraction of investment in less developed countries.

"The President's Tax Message," reprinted in Staff of the Way and Means Committee, *Legislative History of H.R. 10650, The Revenue Act of 1962*, 90th Cong., 1st Sess. 147 (1967).

[229] The Tax Reform Act of 1976 repealed this exception for investment in less developed countries.

States could raise the effective rate of tax on currently low-taxed outbound investment. For example, credits for foreign subnational income taxes could be replaced with deductions (compare case 2 to case 3 in the Appendix to Part Two).[230] This would be a revenue raising measure applicable only to outbound investment. It would represent a move away from capital import neutrality and toward capital export neutrality. Alternatively, instead of allowing deductions for local U.S. income taxes, these taxes could be made creditable against Federal tax. This would reduce the effective rate of tax on domestic investment to that on outbound investment (compare case 2 to case 4 in the Appendix). By effectively reducing the general rate of tax, this proposal would simultaneously promote both capital import neutrality and capital export neutrality.

5. Disincentive for outbound investment: Incentives for domestic research and capital formation

Tax provisions purposely designed to increase investment—namely, the research and experimental tax credit, rules allowing accelerated depreciation, various incentives applicable to the development and production of natural resources, and the investment tax credit (before it was repealed by the 1986 Act)—usually do not apply to investment located abroad. These incentives violate capital export neutrality by providing favorable tax treatment for relocating investment from abroad to the United States. One study provides some preliminary evidence of a strong relationship between domestic tax incentives for investment and reduced direct investment abroad by U.S investors.[231]

If accelerated depreciation were not available for domestic investment, tax liabilities would increase with the rise in taxable income. The unavailability of accelerated depreciation for property located overseas has an entirely different impact on tax liability. Of course, U.S. depreciation rules have no direct impact on foreign taxes. They do potentially have an impact on the fraction of a direct investment dividend from a foreign corporation which carries with it a deemed to be a payment of foreign tax by the U.S. recipient. They also affect the computation of the foreign tax credit limitation. In the former case, availability of accelerated depreciation for purposes of calculating earnings and profits would increase deemed paid foreign tax. This would occur because the foreign taxes deemed paid with respect to a dividend increase with the ratio of the dividend to the payor's earnings and profits as measured by U.S. tax rules. In the case of the foreign tax credit limitation, accelerated depreciation in certain circumstances may actually increase U.S. taxes by reducing foreign tax credits. Accelerated depreciation may be detrimental to foreign branches located in high-tax jurisdictions because it would reduce foreign source income as calculated for purposes of determining the foreign tax credit limitation. On the other hand, for an expense apportioned between U.S. and foreign source gross income on the basis of assets, accelerated depreciation could result in the attraction of less expense to foreign source income.

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[230] It should be noted, however, that some countries may impose a greater income tax burden at the subnational level than at the national (or federal) level.

[231] Michael J. Boskin and William G. Gale, "New Results on the Effects of Tax Policy on the International Location of Investment," in Martin Feldstein (ed.), *The Effects of Taxation on Capital Accumulation* 201-19 (1987).

6. Disincentive for outbound investment: Export incentives

A fundamental decision facing any U.S. business is whether to locate some portion of production overseas. In the case of a business that sells products overseas, the investment location decision to invest abroad or domestically can be influenced by the availability of tax incentives for exports. Export subsidies, like tariffs that penalize imports, reduce global economic welfare. Furthermore, although they undoubtedly improve the lot of the favored export sector, they generally can be expected to reduce the overall economic welfare of the nation providing the subsidy. Nevertheless, tax and other export incentives may reduce the incentive of U.S. businesses to locate production abroad. There are two major U.S. tax incentives providing favorable treatment to the taxation of income from exports. The first of these is the so-called "title passage rule" and the second are the provisions available to exporters who make use of foreign sales corporations (FSCs).

Title passage rule

As a general rule of U.S. taxation, the residence of the seller determines the source of income from sale of personal property. However, a major exception is provided in that sales of inventory are sourced in the location where the goods are sold—generally where title passes. In the case where goods are manufactured in the United States and sold overseas, regulations provide an allocation formula which may result in as little as one-half of this income being sourced domestically, even though most of the value is added in the United States and the income from these sales might not be subject to any foreign income tax. The title passage rule provides additional foreign tax credits to multinational enterprises with high foreign taxes by increasing foreign source income and, thus, the foreign tax credit limitation. The title passage rule, therefore, potentially provides a strong incentive for a U.S. firm that pays high foreign taxes on other income not to locate some portion of its additional production overseas. On the other hand, in order to take advantage of the rule, some portion of activity generally must take place overseas in order to generate the high foreign taxes that shelter income sourced foreign under the rule. Therefore, the title passage rule has much less incentive effect, for either domestic or outbound investment, or for exports, on a company with no foreign investment or tax liability. The rule may, however, make such a company an attractive takeover target to a high foreign-taxpaying company that can benefit from the former company's ability to generate untaxed foreign source income. The tax expenditure budget indicates that the title passage rule will provide an $18 billion subsidy to exporters over the 1992–1996 period.[232]

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[232] Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1992–1996* (JCS-4-91), March 11, 1991.

Foreign Sales Corporations

The predecessor of the foreign sales corporation (FSC), the domestic international sales corporation (DISC), was first included in the Code in 1971. Under the DISC rules, corporations which derived no less than 95 percent of their receipts from qualified exports could indefinitely defer 50 percent of their income from U.S. tax. These provisions were said to be intended to improve the U.S. merchandise trade deficit by subsidizing exports. Furthermore, they were intended to promote investment in the United States by U.S. firms. In fact, they were intended to offset the incentive provided by deferral for U.S. firms to invest overseas.[233]

The European Economic Community argued that the DISC rules were not legal under the General Agreement on Trade and Tariffs (GATT), and in the early 1980s the GATT Council urged the United States to amend the DISC rules to conform to the GATT. Congress enacted the FSC rules in 1984 in order to resolve the GATT dispute over DISCs.[234] Revenue estimates at the time of passage of the FSC legislation indicated that the overall benefit provided by the new FSC rules would be roughly equivalent to that which would have been provided by the DISC rules had they been retained in their prior form.

Unlike the title passage rule, the FSC rules provide a domestic investment incentive for any U.S. taxpayer regardless of whether or not it pays foreign tax or is in an excess credit position. However, the benefit of the title passage rule to an excess credit taxpayer can in some cases be greater than the benefit to the same taxpayer of using a FSC for its exports.

7. Incentive for outbound investment: Foreign tax credits for benefit taxes

Most analysis of international tax policy (including all of the previous discussion in this section) seldom relates tax liabilities to services provided by the government for the benefit of the taxpayer. In effect, most economic analysis assumes that tax revenues disappear once they have been collected, and the only effect of the host country's fiscal policy is a reduction in the rate of return with no benefits to the taxpayer from government expenditures funded by those taxes. However, foreign governments can provide goods and services to the taxpayer just as private businesses can. Although in most cases it is difficult to clearly determine the degree to which a taxpayer receives benefits from the government as a result of taxes paid, if the determination is made that taxes are expenses incurred in return for the provision of government goods and services, most of the conclusions discussed above can be altered. Most notably, in order to maintain capital export neutrality, deductions rather than credits for foreign taxes may be more appropriate.

This point may be illustrated with a simple example. Suppose that a foreign government decides to raise income taxes in order to subsidize telephone rates. The reduction in telephone rates decreases deductible expenses, while the increase in taxes increases creditable income taxes. In this case, outbound investment is favored over domestic investment since domestically located business must deduct expenses incurred directly, while foreign subsidiaries and branches may credit against U.S. tax similar expenses paid indirectly through taxes. If all foreign income taxes paid by multinational enterprises to host governments are creditable, then the tax system may provide an incentive for outbound investment in the degree to which these host governments provide benefits to the enterprises which reduce business expenses. In terms of the principles of international taxation, creditability of taxes which reduce business expenses moves the tax system away from capital export neutrality and closer to capital import neutrality. A number of aspects of U.S. tax rules—e.g., the rules against crediting taxes where the taxpayer receives a subsidy, or the limit on credits for foreign taxes on foreign oil and gas extraction income—are designed to impose bright lines that may prevent the crediting of some foreign taxes paid in exchange for economic benefits from the tax recipient.

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[233] See *1972 Economic Report of the President*, pp. 167–8.

[234] For a more detailed description of DISC and GATT rules, see Joint Committee on Taxation, *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, (JCS-41-84), December 31, 1984, pp. 1041–1042.

8. Incentive for outbound investment: Puerto Rico and possession tax credit

The Puerto Rico and possession tax credit completely shelters from U.S. income tax business income and qualified passive investment income earned by certain U.S. corporations operating in U.S. possessions ("section 936 corporations"). Almost all section 936 corporations operate in Puerto Rico. Data from the Statistics of Income Division of the IRS indicate that in 1987, the Puerto Rico and possession tax credit reduced tax liabilities of U.S. corporations by almost $2.7 billion. The credit was heavily concentrated in the pharmaceutical industry, which accounted for more than one-half of this total.

The credit is a deliberate departure from capital export neutrality. The purpose of the credit is to provide an incentive for U.S. corporations to invest in certain U.S. possessions and thereby increase employment in those possessions. Citing inefficiency in achieving this goal, the Reagan Administration tax reform proposals would have replaced the section 936 credit with a credit for wages paid in Puerto Rico and the possessions.[235]

A major concern in the administration of the possession tax credit is determining the proper allocation of intangible income to possessions. For example, income associated with intangibles may effectively be earned in the United States, but be reallocated to a section 936 corporation in whose hands it bears no U.S. tax and, because of substantial Puerto Rico tax incentives, little Puerto Rico tax. If a portion of U.S. income is allocated to Puerto Rico, the effective rate of U.S. tax on investment in Puerto Rico may be negative.

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[235] *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity,* May 1985, at 307-13.

F. Tax Treaties

In general

Treaties involve trade-offs between the tax benefits they provide to inbound and outbound investments. Policy issues are implicated by the trade-offs. For example, treaties might be seen as benefiting U.S. outbound investment at the cost of reducing U.S. revenues from tax on inbound investment.[236] Treaties might be seen as benefiting the United States by increasing the inflow of investment at the cost of increasing investment outflows and reducing the U.S. tax take from the inflow. Or treaties might be seen as benefiting the United States simply by reducing barriers to the free flow of resources at the cost of reducing U.S. tax revenues. In each case, treaties raise the issue of whether their perceived benefits are in fact benefits, whether they are worth the costs, and whether more efficient approaches would be superior.

A discussion of such issues, which arise, for example, from the role of treaties in influencing the acts of foreign governments, and the procedural differences between creating tax rules through statutes, on the one hand, and treaties, on the other hand, may be found in Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS-1-90), January 23, 1990, at 78-83. The discussion that follows will concentrate on the policy issues arising from the tax benefits achieved from applying treaty rules to outbound investment. It is worth remembering, however, that every such benefit is connected, to a greater or lesser degree, to benefits the residents of the other treaty country achieve vis-a-vis their own U.S. tax liabilities.

An overarching treaty issue regarding outbound investment is whether the reduction in foreign tax benefits the U.S. Treasury, U.S. taxpayers or the United States as a whole. For example, a U.S. taxpayer with excess foreign tax credit limitation generally will not benefit from a treaty reduction in foreign tax on income currently includable in U.S. taxable income. That is, U.S. tax liability will replace the reduced foreign tax liability. In this case, the treaty directly benefits the U.S. Treasury. A taxpayer with excess foreign tax credits would find that a treaty reduction in foreign tax is not offset by an equal increase in U.S. tax. Thus, the treaty directly benefits the taxpayer, not the Treasury.

The issue becomes whether this net tax savings of the U.S. taxpayer on its foreign income is also a net benefit to the United States, which issue is addressed elsewhere in this pamphlet. The conclusion reached becomes more significant to treaty policy the more U.S. taxpayers are likely to be in an excess credit position. It is believed that currently a substantial proportion of foreign income, but by no means all foreign income, is being earned by taxpayers in an excess credit position.

A related issue is the degree to which foreign tax reductions are desirable from a U.S. policy perspective simply because foreign tax reductions of any amount are achieved, and the degree to which the amount of foreign tax reduction sought in negotiations should rightfully be measured by the degree to which they eliminate aspects of foreign laws that discriminate against foreign investors or foreign income of domestic investors. According to one commentator writing prior to the advent of the 1986 expense allocation changes, "*because other countries overtax foreign income,* the United States undertaxes domestic income." [237] Therefore, it can be argued that a legitimate role for treaties, namely, to encourage the reduction of disparately large foreign tax burdens of U.S. outbound investors vis-a-vis residents of the treaty country, became an especially timely one after the advent of those rules.

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[236] For a discussion of the impact of treaties on the taxation of inbound investments see Joint Committee on Taxation, *Background and Issues Relating to the Taxation of Foreign Investment in the United States* (JCS-1-90), January 23, 1990, at 43-54.

Tax sparing

One treaty issue particularly affecting the treatment of outbound investment concerns the U.S. negotiating position with respect to tax sparing. As explained above in II.H., tax sparing would require the reduction or elimination of U.S. tax on income from activities in the source country, for example by allowing a credit for foreign taxes even though the taxes are not actually paid due to a tax holiday or other local tax incentive program. Tax sparing generally is sought by countries seeking, for their own policy reasons, to encourage inbound foreign investment through tax incentives. In that case, tax sparing assures that the entire foreign tax reduction accrues to the benefit of the U.S. taxpayer, and none to the U.S. Treasury.

A similar process of offering competing tax concessions occurs among the States of the United States. Where a State or locality reduces the taxes that a business pays in order to attract that business to the State, the business saves State or local tax expense, and consequently pays a greater Federal tax due to the reduced Federal tax deduction for State and local taxes paid. Tax-sparing foreign tax credits are therefore analogous to a hypothetical State tax deduction system in which the recipient of a State tax incentive would receive a Federal tax deduction for the State taxes not paid. The difference between such State tax-sparing deductions and foreign tax-sparing credits is that the latter provide dollar-for-dollar reductions in U.S. tax; the former would provide Federal tax reductions only in that proportion which the Federal tax rate bears to the State tax reduction.

A number of arguments have been made against the desirability of entering into such agreements.[238]

First, it has been argued that, whatever may be the pros and cons of reducing U.S. taxes on foreign residents by means of the treaty process, that process is particularly unsuited for reducing the U.S. taxes of U.S. persons. Unlike some foreign residents, the U.S. taxpayers making outbound investments have not suggested that they are somehow disadvantaged by having to represent their legitimate interests in the normal U.S. legislative process. When the issue of tax sparing was considered by the Senate Foreign Relations Committee in 1957, Congress had recently considered and rejected proposals to reduce the U.S. tax rate on the foreign income of U.S. persons, thus making it particularly unsuitable, it was argued, to do so by treaty so shortly after the rejection.[239] In the 1970s and 1980s, the Treasury again proposed making creditable through treaties certain foreign taxes that were not creditable under the Code. According to the Senate Committee on Foreign Relations, the House Committee on Ways and Means and the Senate Committee on Finance made it clear that they did not think treaties were the appropriate vehicle for granting such credits.[240]

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[237] Charles Kingson, "The Coherence of International Taxation," 81 *Columbia Law Review* 1151, 1234 (1981) (hereafter cited as "Kingson").

[238] Such arguments appear in *Double Taxation Convention with Pakistan: Hearing before the Senate Comm. on Foreign Relations,* 85th Cong., 1st Sess. 1–34 (1957) (testimony of Professor Stanley Surrey) (hereinafter cited as "*Pakistan Treaty Hearing*"). The discussion in the text in part summarizes some of the points made by Professor Surrey and the members of the Senate Foreign Relations Committee reflected in the record of that hearing.

In effect, the decision to permit tax sparing amounts to a decision that foreign income of a U.S. person should be taxed at a lower rate than U.S. income. It is argued that this very substantial tax policy question is unsuited to resolution in the treaty process. Put another way, until now the legislative decision to provide foreign tax credits has been viewed as a means of avoiding double taxation, not as decision that foreign income should bear less than single taxation.

It has also been argued that giving tax-sparing benefits with respect to one foreign country will greatly increase the pressure to do it for others. In fact, the United States has committed itself to offer tax sparing to certain countries, and to reopen the subject of tax-sparing with certain other countries, should the United States agree to it with any country.[241] Thus, it may be realistic to assume that a decision to provide tax sparing for a particular country thought to be especially worthy will result in a spread of the benefits of countries thought less worthy. Moreover, experience with the Puerto Rico and possession tax credit (sec. 936), itself a tax-sparing credit for operations in Puerto Rico and other U.S. possessions, suggests that once tax sparing is given, it is exceedingly difficult to take back.

Another line of opposition to tax sparing questions the purported incentive effects of tax sparing on its intended beneficiaries, and identifies other incentives created by tax sparing which are said to be perverse. Proponents of tax sparing have argued that U.S. multinationals are *prevented* by the absence of tax sparing from receiving the benefit of foreign tax incentives to investment in the foreign country. It is asserted, therefore, that if the United States spared the right to levy home country tax on foreign income, U.S.-based multinationals could tap low cost labor and raw material markets in developing countries at an after-tax cost "far below" that currently available to them. Thus, proponents of tax sparing argue that current U.S. policy not to enter into tax-sparing agreements hinders U.S. companies from access to the low cost labor and raw materials necessary to compete equally in world trade.[242]

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[239] *Pakistan Treaty Hearing* at 2, 26.

[240] Exec. Rep. No. 98-23, 98th Cong., 2d Sess. 12 (1984).

[241] Such countries include India and China.

[242] Arthur Young & Co., *The Competitive Burden: Tax Treatment of U.S. Multinationals* (1988).

Opponents of tax sparing argue that if the goal of tax sparing were to relieve U.S. tax burdens that might otherwise deter active foreign investment, then under present law, tax sparing is actually unnecessary, given the deferral permitted on active foreign income earned by a U.S. person through a foreign subsidiary. Industries that historically have not taken advantage of deferral—i.e., that have operated abroad in branch form—include natural resources industries which, it is argued, must base their operations where the resources are located, regardless of local tax incentives. It may also be argued that these industries paying sufficient amounts of foreign tax have found themselves to be exempt, in effect, from bearing any additional U.S. tax burden on that income.

Second, it has been argued that if tax sparing is viewed as an investment incentive, then the incentive is inefficient because it rewards business decisions that would have been made regardless of the tax-sparing benefits. Thus, the benefits of tax sparing are said to be largely a windfall to U.S. taxpayers.

Third, it has been argued that tax sparing is also an unfair tax incentive, in that it will tend to benefit only the larger and wealthier U.S. taxpayers, because it is largely those taxpayers that are in a position to locate operations in the countries where tax sparing would be provided.

Fourth, it is argued that tax sparing interacts with the foreign government's internal tax policy to the detriment of tax policy for all concerned. As demonstrated by recent U.S. tax policy discussions, given a certain level of government expenditures and a certain level of debt-financing of those expenditures, a country choosing to impose an income tax has a choice of imposing a relatively low income tax rate on a broad income base, or of imposing a higher rate accompanied by tax incentives. It has been argued that the latter type of system is inherently inefficient and ultimately unstable. In many cases, the government concerned is also dependent on foreign loans or foreign aid to finance the shortfall in revenues caused by the allowance of inefficient tax incentives.[243] Thus, allowance of tax concessions by countries seeking to further their economic development increases pressure on international financial markets and institutions, as well as on foreign aid budgets. It is argued that a treaty device which encourages U.S. investors abroad to bring pressure on foreign countries to grant tax concessions hinders the intelligent revision of foreign tax systems.[244] It is further argued that because in return for United States agreement to provide tax sparing, the treaty country grants to U.S. residents reduced local taxes on payments such as interest, royalties, and dividends, the perverse pressures on the treaty country government that are fostered by tax sparing are increased further by reduced local revenues.

A criticism of tax-sparing agreements negotiated in the past, in addition, is that the amount of credit is based on the amount of taxes saved under the treaty country's tax incentive system (a pure foreign law issue), rather than the amount of tax actually paid (a real economic cost to the taxpayer) or income earned in the foreign country (a U.S. law issue). The credit is based on a fictional amount to be determined by foreign tax administrators, thus, it is said, placing U.S. taxes at the risk of foreign tax administration.[245]

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[243] In the case of the Puerto Rico and possession tax credit, the jurisdiction forgiving local tax has a strong claim on the Federal Government to support its local expenditures.

[244] *Pakistan Treaty Hearing* 32.

Integration of corporate/shareholder taxation

U.S. treaty policy toward integration benefits for cross-border dividends seems to be based on a view that U.S. investors in corporations resident in countries with integrated corporate/shareholder taxation systems should receive source country tax reductions on their dividends from such corporations, and may fairly take a credit under U.S. law based on an amount of tax imposed by the foreign country not on the shareholders, but the corporations.

The treaty issue is not only *whether* the United States will seek foreign tax reductions for the benefit of U.S. investors in the treaty country, and will forego some U.S. tax that might otherwise take the place (under U.S. statutory law) of the reduced foreign taxes; the issue also involves arriving at a view as to *what level* of foreign tax reduction is to be sought and what degree of U.S. tax reduction is believed tolerable. For example, between the time Germany enacted its imputation system (1977) and the time the 1989 treaty was signed, the Treasury Department expressed the view that the most appropriate adjustment to German tax on U.S. investment in German companies would be for Germany to grant U.S. shareholders refunds of the full 36-percent German federal corporate tax on distributed profits.[246]

As explained above in II.H., however, the treaty that was actually signed generally provides U.S. direct investors no imputation benefit, and provides U.S. portfolio investors in German resident companies with a 5-percent rate reduction relative to the generally applicable 15-percent source country treaty withholding rate for dividends paid by German resident companies. German shareholders, by contrast, receive a credit under internal German law for the full 36-percent "distribution burden" that German corporate earnings bear at the corporate level.

Under the treaty that was finally signed, then, U.S. investors in German resident companies receive the benefit of the German split-rate system, but receive a smaller imputation-related benefit than German shareholders in German resident companies receive for dividends paid by the companies.

Similarly, the French treaty provides no integration benefits to U.S. direct investors in French companies. The French and U.K. treaties do, however, afford U.S. portfolio investors integration benefits analogous to those of domestic investors. Only under the U.K. treaty does the U.S. direct investor receive source country rate reductions to account for integration.

The issue is the degree of integration benefit that the United States will consider acceptable in its treaties. The outcome of the German treaty negotiation demonstrated that the United States was willing to accept less than full parity for its investors in Germany. Some may argue that this bargain falls short of what is acceptable. Others may argue that the benefits actually achieved in the German treaty constituted a reasonable compromise with German internal policy.

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[245] *Pakistan Treaty Hearing* 7.

[246] Treasury Department News Release B-1703 (July 2, 1979).

Moreover, it has been a well-established principle of international taxation that the country in which income-producing activity occurs is entitled to collect tax on the income from the activity. Therefore, any treaty system of dividend taxation would likely be designed to permit the source country to retain an adequate percentage of the tax that would have been imposed had the shareholder been domestic.[247] If the United States should in the future adopt an integration system, U.S. treaty policy will have to arrive at an answer to the question what is the appropriate level of source country tax for the United States to insist upon retaining in the case of a U.S. source dividend to a foreign investor. This decision will, in turn, affect U.S. policy in negotiating source country dividend tax reductions for U.S. outbound investors.

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[247] *Cf. Kingson* at 1241-3 (suggesting that as of 1981 the percentage of tax claimed by reason of source jurisdiction alone generally falls between 60 and 80 percent of the source-residence total, with a high of 95 percent under German internal law at the time, and a low of 25 percent by the United Kingdom under the U.S.-U.K. treaty).

APPENDIX TO PART TWO

EFFECTIVE OVERALL TAX RATES ON U.S. SOURCE INCOME AND FOREIGN SOURCE INCOME UNDER VARIOUS U.S. TAX TREATMENTS OF U.S. AND FOREIGN LOCAL TAXES

Case 1. No Local Taxes

	U.S. source taxable income	Foreign source taxable income
Income before tax	100	100
Local tax	0	0
Income after local tax	100	100
Federal taxable income	100	100
Federal tax	34	20
Income after Federal tax	66	80
Foreign source income		100
Foreign tax credit limitation		34
Creditable foreign taxes		20
Total U.S. taxes	34	14
Combined effective tax rate (percent)	34	34
After-tax return	66	66

Case 2. Local Taxes Imposed: Foreign Local Taxes Creditable, U.S. Local Taxes Only Deductible

	U.S. source taxable income	Foreign source taxable income
Income before tax	100.0	100
Local tax	10.0	10
Income after local tax	90.0	90
Federal taxable income	90.0	100
Federal tax	30.6	20
Income after Federal tax	59.4	80
Foreign source income		100
Foreign tax credit limitation		34
Creditable foreign taxes		30
Total U.S. taxes	40.6	4
Combined effective tax rate (percent)	40.6	34
After-tax return	59.4	66

Case 3. Local Taxes Imposed: Foreign Local Taxes and U.S. Local Taxes Only Deductible

	U.S. source taxable income	Foreign source taxable income
Income before tax	100.0	100.0
Local tax	10.0	10.0
Income after local tax	90.0	90.0
Federal taxable income	90.0	90.0
Federal tax	30.6	18.0
Income after Federal tax	59.4	72.0
Foreign source income		90.0
Foreign tax credit limitation		30.6
Creditable foreign taxes		18.0
Total U.S. taxes	40.6	12.6
Combined effective tax rate (percent)	40.6	40.6
After-tax return	59.4	59.4

Case 4. Local Taxes Imposed: Foreign Local Taxes and U.S. Local Taxes Both Creditable

	U.S. source taxable income	Foreign source taxable income
Income before tax	100	100
Local tax	10	10
Income after local tax	90	90
Federal taxable income	100	100
Federal tax	24	20
Income after Federal tax	76	80
Foreign source income		100
Foreign tax credit limitation		34
Creditable foreign taxes		30
Total U.S. taxes	34	4
Combined effective tax rate (percent)	34	34
After-tax return	66	66

PART THREE [1, 2]

DISCUSSION OF VALUE-ADDED TAXES

I. DESCRIPTION OF A VALUE-ADDED TAX

A value-added tax (VAT) generally is a tax imposed and collected upon the "valued added" at every stage in the production and distribution process of a good or service. Although there are several ways to compute the taxable base for a VAT, the amount of value added can generally be thought of as the difference between the outputs and inputs (sales and purchases) of a producing enterprise.[3]

A. Comparison of a VAT with a Retail Sales Tax

Most States impose a sales tax upon the retail sales of goods or services within their taxing jurisdiction.[4] Such taxes generally are collected and remitted to the government by the seller or provider of the taxable good or service. Under a VAT, the tax is collected throughout the production and distribution chain,[5] while under a retail sales tax, the tax is collected only upon sale to the ultimate consumer. Since the price of a good or service purchased by a consumer is the sum of the values added by each enterprise in the production and distribution chain, the amount of tax collected under a VAT should equal the amount of tax collected under a retail sales tax (assuming equal tax rates and equal levels of compliance).

Example 1.—Simple VAT

Assume a landowner sells felled trees to a paper mill for $1,000. The landowner had not been subject to tax with respect to anything utilized in the production of the trees. The paper mill processes the trees into rolls of paper and sells the rolls to a distributor for $1,300. The distributor cuts the rolls into sheets, packages the sheets, and sells the packages to a retail stationery store for $1,500. The retail stationery store sells the entire lot of packages to nonbusiness consumers for $2,000. The jurisdiction in question levies a

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[1] See also Part One of this pamphlet for a discussion of general competitiveness of the United States economy.

[2] See also Part Two of this pamphlet for a discussion of the taxation of investment outside of the United States.

[3] "Value added is defined as the increase in the value of goods and services brought about by whatever business does to them between the time of purchase and the time of sale." Haughey, "The Economic Logic of the Single Business Tax," 22 *Wayne Law Review* 1017, 1018 (1976).

[4] It is reported that there are approximately 50,000 separate sales tax jurisdictions in the United States. *Wall Street Journal*, April 18, 1990, p. A1.

[5] See section IV.C of this part for a description of value-added taxes in certain foreign countries. tries.

broad-based VAT at a rate of 10 percent. The tax would be determined as follows:

Production stage	Sales	Purchases	Value added	Tax
Landowner	1,000	(0)	1,000	100
Paper mill	1,300	(1,000)	300	30
Distributor	1,500	(1,300)	200	20
Retail store	2,000	(1,500)	500	50
Total			2,000	200

Thus, a total of $200 of VAT is assessed and collected in various amounts from the four stages of production. If, instead of a VAT, the jurisdiction in question levied a retail sales tax at a rate of 10 percent, the total amount of tax would also be $200 ($2,000 sales times 10 percent), all collected by the stationery store at the retail level.

B. Considerations that Complicate the Design and Administration of a VAT

The example above is overly simplistic in several respects. First, it calculates value added at a stage in production as the difference between outputs and inputs (specifically, sales less purchases). In fact, a business enterprise may have several types of production inputs, the treatment of which may vary under a VAT. For example, one issue that must be decided in the design of a VAT is the treatment of capital expenditures. For Federal income tax purposes, expenditures that will benefit a future accounting period (such as the purchase of machinery and equipment) generally are capitalized and recovered over time. A VAT could be designed to treat capital expenditures in a manner similar to Federal income tax treatment (i.e., to depreciate or amortize such costs), to expense capital expenditures (i.e., to allow the entire amount of such costs as a deduction in the period incurred), or to ignore capital expenditures (i.e., to provide no allowance for such costs, either in the period of expenditure or future periods).

The example above also assumes a broad-based VAT, that is, one that imposes a single rate of tax upon all goods or services and all levels of production. Indeed, most VAT experts believe that the simplest and most efficient VAT would impose a uniform, flat rate of tax on a broad base of goods and services. However, economic, social, political, and administrative factors often dictate that certain goods and services either be excluded from the VAT or be subject to the VAT at a reduced rate. For example, a VAT that would impose a flat rate of tax on all consumption is generally considered to be regressive because consumption (as a percentage of income) falls as income rises. Therefore, in order to mitigate regressivity, almost all VAT systems adopted to date provide exclusionary relief, or reduced rates of tax, for certain basic necessities such as food, clothing, shelter, or medicine.[6] Certain enterprises (such as small businesses or farms) often are exempted from the VAT because both the compliance costs of the taxpayer and the administrative costs of the government are considered to outweigh the benefits of additional tax collections. Other goods or services often are eliminated from the VAT system because of the difficulty in accurately measuring the amount of value added (for example, financial services).[7] Finally, exported goods generally are not subject to the VAT (this is generally accomplished by permitting the exporter to claim a credit for the VAT previously paid on the item being exported).[8]

How a VAT is designed and administered will depend on a number of issues, including the desired treatment of capital expenditures; whether exemptions or rate differentials are provided for certain goods, activities, or taxpayers; and how such exemptions or differentials are to be implemented.

C. Methods of Determining a Taxable Base Under a VAT

The amount of value added under a VAT can be determined in a number of ways. These include the credit-invoice method, the subtraction method, and the addition method. The credit-invoice method generally has been the system of choice in most countries adopting a VAT, while the subtraction and addition methods have been used in the State of Michigan. Subtraction- and addition-method VATs are sometimes referred to as business transfer taxes.

1. The credit-invoice method

Under the credit-invoice method, a tax is imposed on the seller for all sales made by an enterprise and a credit is provided for all purchases of taxable goods and services (except for purchases by the ultimate consumer). The VAT credit on inputs prevents the imposition of multiple layers of tax with respect to the total final purchase price. As a result, the net tax paid at a particular stage of production or distribution is levied upon the value added by that taxpayer at that stage of production or distribution. This feature makes the VAT neutral as between vertically integrated producers and non-integrated producers.

Example 2.—Simple credit-invoice method

Assume the same facts as in Example 1 above. The credit-invoice method VAT would operate as follows:

Production stage	Gross VAT	Credit	Net VAT
Landowner	1,000×.10=100	(0)	100
Paper mill	1,300×.10=130	(100)	30
Distributor	1,500×.10=150	(130)	20

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[6] See section II of this part for a discussion of the regressivity of a VAT and see section IV of this part for a discussion of the exclusionary relief granted by the VATs of other countries.

[7] See section V of this part for a discussion of VAT administration issues.

Production stage	Gross VAT	Credit	Net VAT
Retail store	2,000×.10=200	(150)	50
Total	580	(380)	200

To receive a credit, a business purchaser generally would be required to possess an invoice from a seller that contains the name of the purchaser and indicates the amount of tax collected by the seller on the sale of the input to the purchaser.[9] Thus, a taxpayer may calculate its tax liability by subtracting the cumulative amount of tax stated on its purchase invoices from the cumulative amount of tax stated on its sales invoices.[10]

Ultimate consumers do not receive VAT credits for purchases. If they did, the entire amount of VAT collected up to the retail stage would be relieved, resulting in no net tax paid to the government. Thus, credits generally are only available to businesses when creditable purchases are used for business purposes. This requirement may lead to some administrative complexity because the imposition of the VAT depends on the use to which the item is put, not just the identity of the purchaser. In addition, there may be significant avoidance of the VAT with respect to purchases of business property that is used for nonbusiness purposes. For example, the owner-operator of a closely held business may purchase an automobile that could be used for both business and personal purposes. The VAT associated with the purchase should be allocated to creditable business and noncreditable personal use. Such allocations are sometimes difficult and subject to potential abuse. In addition, the allocation in the year of purchase may not resemble subsequent allocations over the useful life of the automobile.[11]

The VAT credit on purchases would normally be used to reduce the taxpayer's VAT liability on sales. If VAT credits exceeded VAT liability, an amount equal to that excess could be refunded to the taxpayer, carried back or forward to reduce past or future net VAT liabilities, or used to reduce other non-VAT tax liabilities of the taxpayer. If VAT credits were not refundable, the total amount of VAT that the government would collect in a period could exceed the amount of goods and services consumed by society times the tax rate. The types of businesses that would most benefit from VAT refunds (or, stated alternatively, be most hurt from a lack of refunds) are start-up companies, expanding capital-intensive companies, and exporters,[12] since the taxable purchases of such taxpayers would generally exceed their taxable sales.

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[9] However, rules could provide that the invoice requirement may be waived if the amount of credit is *de minimis*, if the taxpayer through no fault of its own does not possess a tax invoice, or if the amount of credit can be reliably documented by sampling or some other method.

[10] Alternatively, the tax liability may be determined by subtracting the cumulative amount of tax stated on purchase invoices from the product of the taxpayer's cumulative sales (net of tax) times the tax rate. The alternative calculation may be appropriate if the VAT is imposed on all the taxpayer's sales at the same rate of tax.

[11] Similar issues are present in income taxation. Depreciation deductions are only allowed to the extent the underlying property is used for business purposes. Present law provides stringent depreciation limitations and recordkeeping requirements for property susceptible to both business and personal use (i.e., "listed property"), such as automobiles. In addition, if the percentage of business use of such property decreases in later years, prior tax benefits are recaptured (sec. 280F.)

However, annual limitations and recapture provisions may not be feasible under a VAT system since, unlike the income tax, certain VAT systems require a determination of the intended use of a good on the date of purchase, not as the good is used.

It is often argued that one advantage of the credit-invoice method of collecting a VAT is that enforcement is enhanced because invoices are available for audit purposes.[13] However, this enforcement mechanism is useful only if there is a credible threat of audits. In addition, the credit-invoice method possesses a degree of self-enforcement since the tendency by sellers to underreport sales and reduce taxes will be checked by the incentive of purchasers to have such sales reported at their full price in order to receive full tax credits. However, at the retail level, there is no similar check on the sellers' incentive not to report sales since the final consumer does not receive a VAT credit.[14]

2. The subtraction method

Under the subtraction method, value added is measured as the difference between an enterprise's taxable sales and its purchases of goods and services from other enterprises. A rate of tax is applied to the difference in order to determine the tax liability.[15] In this respect, the subtraction method is similar to the credit-invoice method in that both methods measure value added by comparing outputs (sales) to inputs (purchases). The subtraction method differs from the credit-invoice method principally in that the tax rate is applied to a net amount of value added (sales less purchases) rather than to gross sales, with credits for tax on purchases (as under the credit-invoice method). The determination of the tax liability of an enterprise under the credit-invoice method relies upon the enterprise's sales records and purchase invoices, while the subtraction method may rely upon records the taxpayer may maintain for income tax or financial accounting purposes.

If one considers a VAT as applying a tax rate to the difference between taxable outputs and taxable inputs, the subtraction method appears to allow more flexibility in determining the amount of such factors (and thus, the amount of value added) applicable to a taxable period. In general, the credit-invoice VAT strictly determines tax liability as the difference between the tax applicable to sales and the tax borne on purchases. A subtraction-method VAT, on the other hand, could provide any of a variety of rules in defining value added in much the same way that Federal income tax law and financial accounting principles provide various rules for determining net income. For example, the cost of a piece of machinery is generally capitalized and recovered at a prescribed rate over a period of years for income tax purposes. A subtraction method VAT could either adopt the same depreciation schedule, provide an alternative schedule, allow no cost recovery, or expense the cost of such equipment in the year of purchase. A VAT that capitalizes and amortizes the cost of fixed assets uses a variant of income as a tax base, while a VAT that expenses such assets uses consumption as a tax base.[16] The credit-invoice method, by allowing a credit for the tax paid with respect to such equipment in the year of purchase, effectively provides for expensing. Similar issues arise with respect to inventory valuation methods, installment sales reporting, long-term contract reporting, the treatment of bad debts, or any other method that attempts to match the recognition of revenues or costs with a specific accounting period.

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[12] As discussed in sections II. E. and III. C. of this part, export sales are generally not subject to VAT.

[13] See, for example, Charles E. McLure, "Tax Restructuring Act of 1979: Time for an American Value-Added Tax?" *Public Policy*, Vol. 28, No. 3, p. 306.

[14] See, U.S. General Accounting Office, *The Value-Added Tax—What Else Should We Know About It?*, PAD-81-60, March 3, 1981, pp. 32-34.

[15] Example 1 above demonstrates the mechanics of the subtraction method under a simple set of facts. The example is simplistic because each taxpayer has no more than one taxable input and all outputs are subject to a single rate of tax.

Proponents claim that because the subtraction method may rely upon records the taxpayer maintains for other purposes, a subtraction-method VAT could be implemented soon after enactment without creating new administrative and recordkeeping burdens for the government and taxpayers. This argument may lead one to believe that value added under the subtraction method can be calculated by making simple adjustments to amounts declared on income tax returns or financial statements. In reality, this may not be the case. For example, the formula for value added under a subtraction-method VAT is often thought of as sales less cost of goods sold.[17] Both "sales" and "cost of goods sold" generally can be found on an income tax return or financial statement. However, both for book and income tax purposes, the cost of goods sold account may represent purchases of goods from other firms that are subject to the VAT (such as raw materials) as well as internal costs that are not subject to the VAT (such as labor costs). Likewise, purchases of taxable goods and services may be represented in accounts other than cost of goods sold (such as advertising expense). Thus, the subtraction method's reliance upon existing records that aggregate different types of inputs will not always result in the proper determination of value added. Rather, a more accurate measure of value added would require the examination of more basic accounting information such as purchase registrars or invoices. In this respect, a subtraction-method VAT would resemble a credit-invoice method VAT.

Under the credit-invoice method, the seller could be expected to state the amount of tax applicable to a particular sale on the sales invoice in the same manner that sellers in retail sales tax jurisdictions separately state the applicable amount of tax on retail sales. Indeed, in the case of sales to other taxable businesses, the seller under the credit-invoice method would be required to separately state the amount of tax in order for the buyer to claim a VAT credit.[18] It is less clear whether a seller under a subtraction-method VAT would separately state the amount of tax on a sales invoice, since the taxpayer's determination of its VAT liability is not necessarily dependent upon sales records. For this reason, it has been suggested that a subtraction method VAT is more likely to be a "hidden tax" and that consumers may be less likely to be cognizant of the tax.[19]

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[16] For a more complete discussion of this issue, see section II.A.4. of this part.

[17] See, for example, the discussion of the Michigan VAT in the U.S. Supreme Court case of *Trinova Corporation v. Michigan Department of the Treasury*, No. 89-1106, decided February 19, 1991.

[18] Some countries prohibit the separate statement of the VAT on sales to retail consumers. John Due, "Some Unresolved Issues in Design and Implementation of Value Added Taxes," *National Tax Journal*, Vol. XLIII, No. 4, December 1990, p. 383, 392.

3. The addition method

The addition method, like the subtraction method, attempts to measure value added with reference to existing corporate income tax or book accounting records, rather than with reference to the sales and purchase invoices upon which the credit-invoice method relies. Specifically, the addition method adds together the taxpayer's inputs that are not purchased from other taxpayers and applies a tax rate to such sum. In this regard, the addition method is a "mirror image" of the subtraction method in that it uses the items of production that the subtraction method ignores. It is for this reason that the subtraction and addition methods are viewed as alternative, but identical, methods of determining value added.

Example 3.—The addition method

Assume a retailer purchases finished goods from a manufacturer and sells such goods to consumers from a store it purchased several years ago. The income statement of the retailer for a period is as follows:

Item	Amount
Sales	$10,000
Less:	
Cost of finished goods sold	(5,500)
Salaries and wages	(2,000)
Depreciation	(1,500)
Profit	$1,000

Under the subtraction method, value added would be determined by comparing output to input acquired from other taxpayers (i.e., sales of $10,000 less cost of finished goods sold of $5,500 less depreciation of $1,500,[20] or $3,000). Under the addition method, value added would be determined by summing the internally generated (previously untaxed) items of the taxpayer (i.e., salaries and wages of $2,000 plus profit of $1,000, or $3,000).

4. Zero-rated items and exemptions from the VAT

Exclusions from the VAT

As discussed above, most present-day VATs contain exclusions for a variety of reasons. Goods, services, or enterprises may be taken out of a VAT system either by providing a zero rating or an exemption. There can be significant differences in the two alternatives, particularly under the credit-invoice method. If a sale is zero rated, the sale is still a taxable transaction, but the rate of tax is zero percent. Thus, sellers of zero-rated goods or services would not collect or remit any VAT on their sales, but would be required to register as taxpayers. In this way, sellers of zero-rated goods or services are able to claim refunds for the VAT they paid with respect to purchased goods and services.

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[19] See, U.S. General Accounting Office, *Tax-Credit and Subtraction Methods of Calculating a Value-Added Tax*, GGD-89-87, June 20, 1989, pp. 24-5.

[20] The example assumes the jurisdiction in question would allow deductions for purchased capital assets over their useful lives rather than in the year of acquisition.

Likewise, sellers that are provided VAT exemptions are not required to collect any VAT on their sales. However, because such sellers are not considered to be taxpayers under the VAT system, they may not claim any refunds of the VAT they may have paid on their purchases. In addition, purchasers of goods or services from exempt sellers generally are not allowed a credit for any VAT borne with respect to such purchases. Thus, a VAT exemption, as opposed to a zero rating, breaks the chain of checks and balances between inputs and outputs along the various stages of production and distribution.[21] For this reason, most VAT commentators, while recognizing that exemptions may be useful in easing the administrative and recordkeeping burdens of certain targeted taxpayers (such as small businesses), prefer zero ratings as the means of providing VAT relief.

Examples of zero rating and exemption under the credit-invoice method

Whether a sale is zero rated or is exempted from a credit-invoice VAT will have different effects upon the seller and the government, as shown in Examples 4, 5, and 6 below.

Example 4.—Zero rating versus exemption

Assume a manufacturer purchases cotton from a supplier for $1,000. The supplier has no purchases that are subject to the VAT. The manufacturer converts the cotton into clothing which is sold for $1,200. The jurisdiction in question levies a credit-invoice VAT at a rate of 10 percent.

If the jurisdiction provides VAT relief for clothing but not cotton, either through exemption or through zero rating, the results would be as follows:[22]

Production stage	Exemption	Zero rating
Supplier:		
Gross VAT	100	100
Credit	0	0
Net VAT	100	100

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[21] For a more complete demonstration of the potential distortions caused by exemptions (as opposed to zero ratings), compare Examples 5 and 6 and the following discussion.

[22] For the sake of simplicity and comparison, all of the examples demonstrating the mechanics of VAT exclusions assume that the granting of relief at one stage of production or distribution will not result in a price change from the relief-targeted stage to the next stage (i.e., an exempt or zero-rated seller will sell a good or service at the same price as a taxable seller). Whether this is the case in reality will depend on a variety of factors, in particular the degree of competition in the market for the goods and services in question. For a more complete discussion of the incidence of the VAT, see section II. C. of this part.

Production stage	Exemption	Zero rating
Manufacturer:		
Gross VAT	0	0
Credit	0	(100)
Net VAT	0	(100)
Total VAT collected	100	0

If no VAT relief were provided, the total VAT collected in this example would be $120 ($100 from the supplier and $20 from the manufacturer). In Example 4 above, if cotton rather than clothing were the item to which relief was granted, either an exemption or a zero rating would produce the same result, as follows:

Production stage	Exemption	Zero rating
Supplier:		
Gross VAT	0	0
Credit	0	0
Net VAT	0	0
Manufacturer:		
Gross VAT	120	120
Credit	0	0
Net VAT	120	120
Total VAT collected	120	120

As demonstrated in Examples 5 and 6 below, as the number of levels of production (and distribution) increase, the type of VAT relief granted as well as the stage of production at which the relief is granted may significantly affect the amount of total taxes collected.

Example 5.—Zero rating in a credit-invoice VAT, with multiple levels of production

Assume the same facts as in Example 4 above, except that the manufacturer sells the clothing to a retailer, who in turn sells the goods to consumers for $1,500. The results of providing a zero rating at various stages of production are as follows:

Production stage	Zero rating for—			
	No one	Supplier	Manufacturer	Retailer
Supplier:				
Gross VAT	100	0	100	100

Production stage	Zero rating for—			
	No one	Supplier	Manufacturer	Retailer
Credit	0	0	0	0
Net VAT	100	0	100	100
Manufacturer:				
Gross VAT	120	120	0	120
Credit	(100)	0	(100)	(100)
Net VAT	20	120	(100)	20
Retailer:				
Gross VAT	150	150	150	0
Credit	(120)	(120)	0	(120)
Net VAT	30	30	150	(120)
Total VAT collected	150	150	150	0

As demonstrated in the last column in the table above, a zero rating at the retail level relieves all the VAT collected at all prior stages by refunding such amount to the retailer and results in no tax being collected by the government. A zero rating at any level before the retail stage results in total government collections being the same as if no exclusions were granted (compare the first three columns in the table above), and also results in the correct amount of total VAT being collected (again, assuming no price changes as a result of the relief granted).[23]

Example 6.—Exemption in a credit-invoice VAT, with multiple levels of production

If the relief granted in Example 5 is in the form of an exemption rather than a zero rating, the results would be as follows:

Production stage	Exemption for—			
	No one	Supplier	Manufacturer	Retailer
Supplier:				
Gross VAT	100	0	100	100
Credit	0	0	0	0
Net VAT	100	0	100	100
Manufacturer:				
Gross VAT	120	120	0	120

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[23] The "correct" amount of the VAT on an item is the cumulative value added through all stages of production times the VAT rate. Thus, the correct amount of the VAT through the retail sale stage in Example 5 is $150.

Production stage	Exemption for—			
	No one	Supplier	Manufacturer	Retailer
Credit	(100)	0	0	(100)
Net VAT	20	120	0	20
Retailer:				
Gross VAT	150	150	150	0
Credit	(120)	(120)	0	0
Net VAT	30	30	150	0
Total VAT collected	150	150	250	120

As demonstrated by the last column in the table above, a system that provides an exemption at a final step of production will relieve only the tax related to the amount of value added at the retail stage and not all the tax collected through such point. An exemption at the initial stage of production will shift the amount of tax normally collected at such stage to the next stage and results in the government collecting as much total VAT as if no exemption were provided (compare the first two columns above).

Ironically, an exemption at an intermediate stage may result in more total VAT being collected than if no exemption were granted. For example, in column 3 of Example 6, although the manufacturer pays no VAT on the sale, neither the manufacturer nor its customer, the retailer, receive credit for the $100 of VAT paid by the supplier. Thus, the total amount of VAT paid through the entire production and distribution process is greater when an intermediate seller is exempt from the VAT than when an intermediate seller is taxable (even if it is zero rated). In addition, if an intermediate seller is exempt from the VAT, the total amount of VAT paid will be greater than (and bear no necessary relationship to) the correct amount of the VAT on an item.[24] This feature may give an advantage to, or cause an incentive for, vertically integrated businesses. Primarily for these reasons, most commentators believe that zero rating is superior to exemptions for purposes of granting VAT relief.[25]

Examples of exclusions under the addition and subtraction methods

There is little practical experience available to assess how exclusions would operate under addition- or subtraction-method VATs.[26] Theoretically, however, it should be possible to design exclusions that would replicate the results of zero ratings or exemptions under the credit-invoice method. In order for a subtraction-method

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[24] As in Example 5, the correct amount of the VAT for Example 6 is $150.

[25] See, *e.g.*, Charles E. McLure, Jr., *The Value-Added Tax*, Chapter 6, American Enterprise Institute for Public Policy, 1987.

[26] Since the addition method is the mirror of the subtraction method, systems for providing exclusions could be expected to have similar designs and results. For the sake of brevity, the following discussion and examples will only be in reference to the subtraction method.

VAT to replicate the results of zero ratings under the credit-invoice method (Example 5 above), a seller to whom relief is targeted would not be taxed on sales but would be allowed deductions for purchases that bore the tax, potentially creating a net deficit upon which a refund could be based. However, as discussed below, such a system presents administrative difficulties that would result in a loss of some of the perceived advantages of the subtraction method.

Example 7.—Zero rating equivalent under the subtraction method

Assume the same facts as in Example 5, that is, a supplier sells cotton to a manufacturer for $1,000, the manufacturer converts the cotton into clothing and sells it to a retailer for $1,200, and the retailer sells the clothing to consumers for $1,500. There are no other inputs in the production and distribution chain and the jurisdiction in question imposes a subtraction-method VAT at a 10-percent rate. The results of a zero rating equivalent at various stages of production would be as follows:

Production stage	Zero rating equivalent for—			
	No one	Supplier	Manufacturer	Retailer
Supplier:				
Sales	1,000	0	1,000	1,000
Purchases	0	0	0	0
Value added	1,000	0	1,000	1,000
Tax liability	100	0	100	100
Manufacturer:				
Sales	1,200	1,200	0	1,200
Purchases	(1,000)	0	(1,000)	(1,000)
Value added	200	1,200	(1,000)	200
Tax liability	20	120	(100)	20
Retailer:				
Sales	1,500	1,500	1,500	0
Purchases	(1,200)	(1,200)	0	(1,200)
Value added	300	300	1,500	(1,200)
Tax liability	30	30	150	(120)
Total VAT collected	150	150	150	0

Taxpayers who purchase inputs from such zero-rated sellers would not be allowed to deduct the cost of such purchases in computing their VAT liability. Requiring the purchaser to maintain records that trace the tax status of the seller of acquired inputs would eliminate the perceived advantage of the subtraction method (namely, the use of readily available accounting records) and would result in a system that is essentially identical to a credit-invoice VAT.

However, tracing the status of the seller is not required if the relief is granted only upon retail sales since ultimate consumers may not claim credits for VAT borne by their purchases. For example, assume that the jurisdiction in question deemed it desirable not to tax clothing in order to alleviate the perceived regressivity of the VAT. One of the ways to do so would be to provide relief at each level in the production and distribution of clothing. However, such relief would involve complexity, as it is often impossible to discern how a product, particularly a raw material, may be used. For example, cotton can be used for many non-clothing purposes and even spun cloth might not necessarily be used for clothes. A better method to provide relief for a particular good or service is to provide the exclusion only at the retail level by having the seller not charge tax on its retail sales of the tax-favored items, allow it to deduct all purchases, and allow the retailer a refund for any deficits generated under the subtraction method.[27] Such a method could act to reduce regressivity if the retailer charged a price that reflected the refund.[28]

Still, the method would involve some administrative complexity. Sellers of a variety of products would have to distinguish between taxable and tax-free items; however, this does not appear to represent a great burden as retail sellers must often make such distinctions for State retail sales tax purposes, and knowledgable buyers would demand that tax not be levied on exempted items. More troubling is the requirement that sellers would be required to distinguish between sales to consumers (that would not be subject to tax) and sales to other businesses (that would continue to be subject to tax). Present retail sales taxes also require such distinctions. However, in the cases of retail sales taxes, sales to businesses are generally tax-free, and the taxing jurisdiction provides businesses with identification numbers in order to claim the exemption. It would not be feasible to provide all consumers with identification numbers in order to claim the tax relief, and it is questionable whether the system could function by placing all taxable business purchasers on an "honor system."

Exclusions also could be designed under a subtraction-method VAT that would replicate the results of exemptions under the credit-invoice method (as in Example 6 above). This could be accomplished by exempting a targeted seller from the system, not allowing such seller to deduct the cost of any purchased inputs and not allowing purchasers of inputs from exempt sellers to deduct the cost of such inputs in computing their VAT liability. However, providing such exemptions would result in the potential over- or undercollection of the correct amount of tax.[29]

Finally, an exclusion system can be designed for a subtraction-method VAT that does not have an equivalent under the credit-invoice method. Such a method would provide a "one-level" exemption for a targeted taxpayer or stage of production. Purchasers of inputs from such exempted sellers would be allowed to deduct fully the cost of such purchases. Thus, the one-level exemption method would reduce government VAT receipts in proportion to the amount of valued added at the targeted stage of production. This form of relief would be appropriate if the goal were to relieve a particular type of taxpayer (for example, small businesses or manufacturers), but would not be appropriate if the goal were to relieve a particular type of product (for example, food). However, even such relief may present administrative problems (for example, how to define the class of favored taxpayers).

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[27] For this purpose, an export sale would be considered to be a retail sale since most VATs provide relief for export sales. Whether such a system would be administrable with respect to a taxpayer that has both export and domestic sales would depend on whether the taxpayer has the capability of distinguishing between such sales. In addition, allowing for refunds would require administrative measures to ensure that retailers do not overstate refund claims.

[28] As noted above, for the sake of simplicity, the examples assume that there will not be such price adjustments.

[29] See the last two columns of Example 6.

5. VAT rate differentials

A VAT may be designed with zero ratings or exemptions so that certain goods or services or certain classes of taxpayers are not subject to the tax. Alternatively, or in addition, a VAT may be designed so that different rates of tax are imposed on different goods or services. Rate differentials are generally used to impose a greater tax burden on deemed luxury or potentially harmful products [30] or a lower tax burden on staples.[31] Examples of rate differentials can be found in certain Federal excise taxes, State and local retail sales taxes, and VATs of foreign countries.

Rate differentials under the credit-invoice method

Rate differentials, like exclusions, complicate any VAT system. Under the credit-invoice method, sellers of multiple goods subject to different rates must distinguish among such goods in order to determine the amount of tax to charge.[32] Such determination may be difficult. However, once such determination is made, the applicable amount of tax is charged and stated on the invoice and the credit-invoice system operates without complication (since purchasers of goods or services subject to the tax may only claim credits for the amount of tax stated on an invoice). Thus, a VAT with rate differentials places greater reliance upon primary source documents such as sales and purchase invoices for administration of the system. Alternative calculations for determining tax liability, such as simply multiplying aggregated sales or purchase data by the tax rate, are not feasible if the taxpayer buys or sells multiple types of items.

Rate differentials under the subtraction method

Example 7 above demonstrates that it is theoretically possible for a subtraction-method VAT to be designed to replicate the results of zero rating under the credit-invoice method by allowing targeted taxpayers to not charge tax on the tax-favored sales, deduct the cost of all their previously taxed purchases, and claim a refund based upon the amount by which purchases exceed taxable sales. However, such a system cannot effectively operate if the taxpayer's various purchases are subject to different rates of tax. Primarily for this reason, some commentators state that the subtraction and addition methods are inadequate VAT systems if multiple VAT rates are desired.[33]

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[30] For example, most countries that impose a VAT on food and beverages provide a higher rate of tax on caviar and alcoholic beverages.

[31] The lower rate of tax on staples is generally used as a way of negating the regressivity of the VAT. See sections III.E. and II.D.3. of this part for a discussion of the treatment of selected staples and VAT regressivity, respectively.

[32] For example, in Italy whole and skim milk are taxed at different VAT rates.

However, it is possible to design a functional subtraction-method VAT with rate differentials so long as such differentials are only provided to retail sales of tax-favored items to ultimate consumers. All other sales of such items to businesses would bear the normal, full rate of tax. Taxpayers would determine their tax liability by determining the amount of tax collected on their sales (in the same manner as under the credit-invoice method) and subtracting from that amount the product of all purchases from other taxpayers and the normal, full rate of tax. Under this system, sellers would be required to distinguish between fully taxable and tax-favored sales (as required under many State retail taxes) and between consumer and business purchasers (which may cause compliance difficulties and administrative problems as discussed above).

6. Summary of administrative issues associated with VAT design

Zero rating versus exemptions

The form of relief from the VAT (zero rating versus exemption) raises many administrative issues. For instance, if the intent of the relief is to ease the administrative burden for a certain class of sellers, the exemption method may be preferable since it totally eliminates VAT bookkeeping requirements for those sellers. Under a zero-rating system, the seller is still considered a VAT taxpayer and must maintain records in order to determine the amount of VAT credit for which it is eligible. The VAT credit generally is allowable only with respect to the VAT paid on the purchase of goods or services that are used for the production of taxable goods and services. If a purchased good or service has both a personal and business use, an allocation must be made in order to determine the amount of VAT credit allowable.

An exemption, on the other hand, may increase the total VAT paid and cause administrative complications in some instances. If a taxpayer engages in both taxable and tax-exempt transactions, the amount of VAT paid on inputs must be allocated or apportioned between the taxable and tax-exempt activities. Such an issue does not arise under a zero-rating system. Under that system, if a taxpayer engages in both fully taxable and zero-rated transactions, all his activities are considered to be taxable for purposes of the VAT credit and no allocations need be made.

Finally, with respect to either exempted, zero-rated, or rate-differentiated activities, a clear definition of the transactions that qualify for the relief becomes critical for purposes of reducing the number of potential disputes between the taxpayer and the taxing authorities and between the taxpayer and its customers.

For these and other reasons, it generally is agreed among VAT experts that a VAT system that applies to a broad base of consumption is theoretically preferable to a system that provides a wide range of exclusions. It is also generally agreed that zero-rating is theoretically preferable to exemptions (even with the recognition that this choice entails some increases in administrative burdens to taxpayers and the government).

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[33] See, *e.g.*, Charles E. McLure, Jr., *The Value-Added Tax*, Chapter 6, American Enterprise Institute for Public Policy, 1987.

Credit-invoice versus subtraction method

The credit-invoice and subtraction methods operate in much the same fashion if the VAT does not provide for any exclusions. In such cases, the subtraction method may be administratively easier because it can be designed to rely upon records the taxpayer may otherwise maintain for non-VAT reasons, while the credit-invoice method relies on purchase and sales invoices to determine tax liability. However, if the VAT contains exclusions or rate differentials that require allocations between taxable and tax-exempt activities, much of the administrative ease of the subtraction method is lost. Finally, there is little practical experience that can be gathered from the operation of VATs in other countries upon which a subtraction method system may be based.

II. ANALYSIS OF ECONOMIC ISSUES

A. Value-Added Taxes and Other Broad-Based Consumption Taxes

The previous section discussed how a value-added tax is in theory equivalent to a retail sales tax. It also demonstrated that value-added taxes collected under the credit-invoice method and subtraction method can be equivalent.

There are numerous important practical differences among the retail sales taxes, subtraction-method VAT, and credit-invoice VAT. These administrative differences may prove to be significant in choosing which type of VAT (if any) to implement. Each has a different collection mechanism, and these administrative differences have ramifications for other features of the VAT. For example, there may be much greater compliance with a credit-invoice VAT than with a retail sales tax or a subtraction-method VAT. A subtraction-method VAT may not qualify for approval under the General Agreement on Trade and Tariffs (GATT) for border tax adjustments.[34] Furthermore, it may be difficult to implement multiple rates under a subtraction-method VAT. In fact, it may not be possible to implement a subtraction-method VAT that incorporates the special rules, rates, and exceptions that are common in European credit-invoice VAT systems.

It is, however, also important to stress the similarities of each of these tax structures. They are all taxes on consumption, and it is possible to design a retail sales tax, a credit-invoice VAT, and a subtraction-method VAT with the same rate and largely the same base. Because of the differences in methods of collection, some have incorrectly attributed economic differences to these taxes. In general, however, the economic effects of these taxes are not affected by methods of tax collection. Therefore, despite perceptions to the contrary, economists consider the impact of these consumption taxes to be roughly equivalent—no matter how they are administered—on saving, on the distribution of income, and on international trade.

Before discussing the economic effects common to value-added taxes, it is important to note similarities of VATs to other taxes besides sales taxes. The common tax base of the retail sales tax, credit-invoice VAT, and subtraction-method VAT is expenditures on goods and services for personal consumption. Consumption taxes may also be levied in the form of a personal expenditure tax or a personal exemption value-added tax (the Hall-Rabushka tax proposal, discussed in more detail below). Furthermore, under certain conditions, a tax on labor income can be equivalent in the long run to a consumption tax. Most of the economic analysis that follows in this part applies equally to any VAT or any other of these broad-based consumption taxes.

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[34] For a discussion of value-added taxes and GATT, see section II.E.3. of this part, below.

1. Personal consumption tax

A personal consumption tax (also referred to as a "cash flow tax"[35] or an "expenditure tax") is similar in administration and calculation to the individual income tax, except that saving net of borrowing is excluded from the tax base. Under the personal consumption tax, as under the current individual income tax, taxpayers are required to file annual returns to determine their tax liability. However, in terms of its economic impact, the tax is more similar to a broad-based retail sales tax or a broad-based VAT. This similarity might not be readily apparent since there are significant differences in its method of collection. Unlike a retail sales tax and credit-invoice method VAT, a personal consumption tax is not levied on a transaction-by-transaction basis. In addition, unlike sales taxes and value-added taxes, a personal consumption tax is not collected from a business selling goods but from households consuming goods.

In the simplest case, to calculate taxable consumption under this type of tax, a taxpayer is required to report all receipts (income plus net borrowings) during the taxable year and subtract increases in net wealth over the taxable year (e.g., changes in the sum of all bank account and money market account balances).[36] The basic method is illustrated in the following example:

Gross Receipts	850
Income	800
Net New Borrowing	50
Less: Change in Savings	100
Savings balance (end of year)	200
Less: Savings balance (beginning of year)	100
Equals: Consumption	750

There are several problems with implementation of this system. Most notable are the proper measurement and reporting of changes in accumulated savings and in net indebtedness. For example, one question is what component (if any) of the purchase price of housing is considered savings.

The major advantage of this method is the potential for applying different rates of tax to different taxpayers on the basis of income or some other measure of ability to pay. For example, personal exemptions and graduated rates may be applied. Under a personal consumption tax system, any degree of progressivity that is desired may be obtained by adjusting rates. Since taxpayers with higher levels of income generally consume a smaller fraction of their income than do taxpayers with lower levels of income, in order for a personal consumption tax to maintain the same degree of progressivity as a graduated income tax, rates would have to be more graduated than income tax rates.[37]

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[35] In 1977, in a major study on basic tax reform, the Treasury Department reported on a broad-based income tax and a "cash flow" personal consumption tax. See, Department of the Treasury, *Blueprints for Basic Tax Reform*, January 17, 1977.

[36] This method of calculating consumption is premised on the accounting convention that consumption is equal to income less net new saving.

2. Personal exemption value-added tax

A personal exemption value-added tax was first described by Robert E. Hall and Alvin E. Rabushka.[38] The Hall-Rabushka tax proposal basically has two components. The first component is similar to a subtraction-method VAT with the important exception that businesses are allowed to deduct wages and salaries. The second component is the taxation of those deductible wages at the individual level. The total tax base is the same as a broad-based VAT. Both the business component and the individual component are taxed at the same rate. However, in order to reduce regressivity endemic to a VAT, personal exemptions could be granted to individual taxpayers. Thus, the personal exemption VAT—like the personal consumption tax—generally has a broad consumption tax base but also provides exemptions in order to deal directly with concerns about the regressivity of consumption taxes. Unlike exceptions widespread in credit-invoice VATs for certain "necessities," personal consumption taxes can more efficiently target regressivity offsets to only those lowest income classes.

3. Differences in the generational distribution of wage taxes and consumption taxes

Although wage taxes are not consumption taxes per se, they are often discussed in the context of consumption taxes because under certain conditions they are the economic equivalent of consumption taxes. Because economists stress the equivalence of these two taxes, it is important to understand in what context this assertion can be made and in general to understand the degree of similarity between a consumption tax and a wage tax.

Under a consumption tax, all income is subject to tax except amounts equal to increases in net wealth (i.e., saving). It is also true that under a wage tax, increases in net saving or amounts equivalent to increases in net saving are exempt from tax. The key to the equivalence of the two taxes is the equivalent treatment of increases in net wealth.

Increases in net wealth (except for gifts and inheritances) can arise only from either of two sources: savings out of capital income (sometimes known as "inside build-up") or savings out of labor income. The first type of increase in net wealth, "inside build-up," is exempt both under a consumption tax, because it is not consumed, and under a wage tax, because it is not earned by the performance of labor services. The second type of increase in net wealth, savings from wages, is taxed under a wage tax when it is saved but exempt when it is consumed, while under a consumption tax it is not taxed when saved but it is taxed when consumed.[39] With a single rate, the tax treatment of saving from capital income is exactly the same under consumption and wage taxation, and the tax treatment of saving from labor income is equal in present value under consumption and wage taxation. Therefore, from a lifetime perspective, a young person who receives, and will grant, no bequests and who has yet to undertake any savings would be subject to the same economic burden under either a consumption or a wage tax.

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[37] However, since consumption generally is a smaller base than income, a consumption tax would have average rates of tax higher than an income tax which raised the same amount of revenue.

[38] See Robert E. Hall and Alvin E. Rabushka, *The Flat Tax*, Stanford: Hoover Institution Press, 1985. This tax is also described in Department of the Treasury, *Tax Reform for Fairness, Simplicity and Economic Growth, Vol. 3: Value-Added Tax*, pp. 35-38.

In the long transition period to a consumption tax, however, there are substantial benefits under wage taxation relative to consumption taxation for those with existing savings. Because of the eventual taxation of these savings under a consumption tax as compared to their non-taxation under a wage tax, a consumption tax potentially would be more progressive than a wage tax. Although consumption taxes and labor income taxes are considered to be economically equivalent in the long-run, differences in their incidence—especially their inter-generational incidence—can be substantial. Consumption taxes can impose a burden on existing wealth, while labor income taxes do not.

Similarly, the transition from an income tax to a consumption tax may have a large impact on the tax burden across generations. In general, replacement of an income tax with a consumption tax shifts the tax burden toward the elderly whose consumption often exceeds their current income. Although a consumption tax would generally be fair to all generations born after the switch from an income tax to consumption tax, there may be substantial unfairness across generations during the transition from an income tax to a consumption tax. Individuals subject to an income tax during their working years and then subject to a consumption tax in their retirement years would be unfairly burdened from a lifetime perspective.

Consideration of tax burdens over taxpayers' entire lifetimes provides perspective that can modify commonly held policy conclusions. For example, one author has argued that, in the long run, a consumption tax can be *more* progressive than an income tax because an income tax does not tax wealth derived from gifts and bequests, while a consumption tax provides an effective means of (eventually) taxing this accumulated wealth.[40]

4. Value-added taxes that are not consumption taxes

Although nearly all VATs currently in effect throughout the world basically employ a consumption base, not all forms of VATs are necessarily consumption taxes. A VAT may have income as its base. In general, implementation of an income base under a VAT is achieved by replacing expensing of purchased assets with deductions for depreciation, amortization, and depletion. In addition, self-created assets would be capitalized and amortized, and net additions to inventories also would not be allowed as deductions. This capital accounting required under an income-based VAT results in substantially greater complexity than an otherwise similar value-added tax with a consumption base. In general, capital accounting methods similar to that of the current income tax would have to be applied to an income-based VAT.

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[39] The difference between a wage tax and a consumption tax is analogous to the difference between a "back-loaded" individual retirement account (IRA) and a "front-loaded"-IRA. Under a wage tax, as under a back-loaded IRA, initial saving is subject to tax, but withdrawals are exempt. Under a consumption tax, as under a front-loaded IRA, initial saving is exempt from tax, but withdrawals are taxable.

[40] See Larry Kotlikoff, "The Case for a Value-Added Tax," *Tax Notes*, April 11, 1988, pp. 239-244. Nicholas Kaldor had earlier made a similar point, noting that the very wealthiest families consumed in excess of their income: "Nobody could contend that if the existing charges were levied on actual expenditure instead of income... the wealthiest sector would come off more lightly." Nicholas Kaldor, *An Expenditure Tax*, London: Unwin University Books, 1955, pp. 49-50.

Although similar to consumption-based VATs in their method of collection, income-based VATs have economic effects similar to those of income taxes. Most notably, while less regressive than consumption taxes, income-based VATs would distort savings behavior like an income tax. It is interesting to note that although almost all VATs that have been implemented are consumption-based, "value-added" is an income concept. Outside the study of taxation, value-added would not be measured by deducting savings or additions to capital, as is evident from standard national income accounting where national income equals the sum of all value added.

B. Consumption Taxes and Saving

The most frequently cited benefit of a consumption tax is that, unlike an income tax, it does not distort saving behavior. It is often argued that current U.S. saving rates are relatively low compared to earlier years and compared to other countries, and the current low rate of saving is related to income taxation.[41] Imposition of a broad-based consumption tax alone is not perceived as increasing saving; it is the substitution (or reduction in the rate of growth) of income taxation with consumption taxation that could promote savings.[42] In light of the low national savings rate, promotion of national savings is widely held to be an important policy goal. In a closed economy, increased savings would tend to lower the domestic cost of capital, which in turn could increase capital investment. A larger capital stock would promote a faster rate of productivity growth and increases in real wages. To the extent that competitiveness is viewed as the increased ability of U.S. firms to compete in world markets by lowering the cost of capital and by improving the quality of goods produced with that capital, increased saving can promote competitiveness.[43] In an open economy, some increased

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[41] For a discussion of the determinants of rate of saving, see Joint Committee on Taxation, *Present Law, Proposals, and Issues relating to Individual Retirement Arrangements and Other Savings Incentives* (JCS-11-90), March 26, 1990; and Joint Committee on Taxation, *Description and Analysis of S. 612 (Savings and Investment Incentive Act of 1991)* (JCS-5-91), May 14, 1991.

[42] To the extent that revenues are dedicated to deficit reduction, and not to new government spending, *any* tax increase reduces the Federal deficit and thereby directly increases net U.S. saving.

[43] Many have expressed this view, including the current Secretary of the Treasury:

> "Because we are not saving at a sufficient rate, our cost of capital in the United States is consistently higher than that of our major trading partners. In some cases, U.S. companies face capital costs fully twice as high as our foreign competitors pay. The consequence is clear: If one of the essential inputs to production is so much more expensive in the United States, we are at a disadvantage in world trade. We simply cannot pay more than our competitors for a basic component of production and still hope to come out ahead. Ultimately, the higher cost of capital endangers the competitive position of

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saving would result in greater overseas investment or a reduction of investment in the United States by foreigners. However, to the extent this occurred, there would be a devaluation of the dollar, which would promote exports and reduce the U.S. merchandise trade deficit. To the extent that competitiveness is viewed as increasing net exports (i.e., reducing the merchandise trade deficit), increased savings can also promote competitiveness in this sense.[44]

1. Theory of the effect of taxes on saving

To help understand the detrimental effects of income taxation on saving, consider the following example. Suppose Mr. Smith lives two periods ("working years" and "retirement"), earns $100 of wages in the first period, and spends all of his savings in the second period. Also suppose that savings earn a rate of return of 10 percent from the first to second period, and that Mr. Smith applies a 10-percent discount rate in valuing second-period cash flows. Now also consider Mr. Smith's tax burden (in terms of present value) under different patterns of saving and consumption:

Savings	Present value of tax burden	
	25 percent income tax	35 percent consumption tax
0	25.00	25.91
25.00	25.57	25.91
50.00	26.14	25.91
75.00	26.70	25.91

Under a consumption tax, the present value of Mr. Smith's tax burden is $25.91 no matter how much he saves (if at all). For example, if Mr. Smith saves $25 in the first period, he consumes $55.56 and pays tax at a 35 percent rate of $19.44. In the second period he has $2.50 of interest plus $25 of savings. He consumes $20.37 and pays tax of $7.13. The present value of his tax for the two periods is $25.91. Alternatively, if Mr. Smith saves $75 in the first period, he consumes $18.52 and pays $6.48 of tax. In the second period he has interest of $7.50 plus $75 of savings. He consumes $61.12 and pays tax of $21.38. The present value of these taxes is again $25.91. Therefore, the consumption tax is neutral with regard to the savings.

> U.S. companies. And if our capital costs are consistently higher than those of our trading partners over a long period of time, our leadership in the international economy, and even our standard of living, will be placed in jeopardy."

See Nicholas F. Brady, "U.S. Economic Growth and the National Saving Rate," in Charls E. Walker, Mark A. Bloomfield, and Margo Thorning, eds., *The U.S. Savings Challenge*, Boulder: Westview Press, 1990.

[44] It is important to note, however, that depending on one's definition of "competitiveness," different and sometimes contradictory policies may be recommended to promote this goal. For example, investment incentives can promote long-term productivity growth by increasing the stock of capital. However, investment incentives will also attract foreign capital, which in turn causes the dollar to appreciate. Appreciation of currency increases imports, reducing "competitiveness" if it is defined with reference to the size of net exports. For a more detailed discussion, see Part One of this pamphlet, "Discussion of Issues in the Competitiveness of the United States Economy."

Under the income tax, the present value of Mr. Smith's tax burden increases if he increases his saving. Under an income tax, with a 25 percent rate, Mr. Smith's tax burden in the first period is $25.00 regardless of his consumption. However, his income tax in the second period depends on his interest from his first-period saving. If he saves $25 in the first period, he earns $2.50 of interest and pays $0.63 of tax in the second period. In this case, the present value of his lifetime tax burden is $25.57. Alternatively, if he saves $75 in the first period, he earns $7.50 of interest and pays $1.88 of tax. The present value of his lifetime tax burden is now $26.70. Therefore, the income tax distorts the savings decision.

Calculations such as those presented above are widely used to show the bias of the income tax against saving. Although empirical estimates of the effects of income taxation on savings are in dispute (as discussed below), it is important to recognize that despite calculations such as above, it is not at all clear, even from a theoretical perspective, that income taxation reduces saving. An income tax could actually increase savings if the taxpayer offset the reductions in retirement income brought about by an income tax by increasing savings. Sometimes economists will refer to this latter situation as the case of the "target saver," where increases in taxes on saving only increase the amount of savings required to achieve fixed savings objectives, such as a child's college education or some minimal amount of retirement income. Alternatively, a taxpayer may behave more like a "target consumer" where current consumption is fixed and saving is a residual, and the only effect of taxation is a reduction in saving.

2. Evidence on the effect of taxes on savings

Like other consumption taxes, a value-added tax neither discourages nor encourages saving. However, a VAT may affect saving to the extent that the revenue it raises is used to reduce taxes that do reduce savings, such as the income tax. If VAT revenues replace income tax revenues, determining the indirect effect of a VAT on saving depends on determining the effect of income taxes on saving. Economists disagree as to whether taxpayers will respond to increases in net returns on savings by increasing or reducing their savings. Some studies have argued that theoretically one should expect substantial increases in saving from increases in the net return.[45] Other studies have argued that, theoretically, large behavioral responses to changes in the after-tax rate of return need not occur.[46] Empirical investigation of the responsiveness of personal saving to after-tax returns provides no conclusive results. Some studies find personal saving responds strongly to increases in the net return,[47] while others find little or a negative response.[48]

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[45] See, Lawrence H. Summers, "Capital Taxation and Accumulation in a Life Cycle Growth Model," *American Economic Review*, Vol. 71, (September 1981).

[46] See, David A. Starret, "Effects of Taxes on Saving," in Henry J. Aaron, Harvey Galper, and Joseph A. Pechman (eds.), *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax*, (Washington: Brookings Institution), 1988.

[47] See M. Boskin, "Taxation, Saving, and the Rate of Interest," *Journal of Political Economy*, April 1978, Vol. 86.

[48] See G. von Furstenberg, "Saving," in H. Aaron and J. Pechman (eds.), *How Taxes Affect Economic Behavior*, Brookings Institution, 1981.

C. Equity and Incidence

Value-added taxes generally have a base equal to a significant portion of consumption, and in general do not include personal exemptions or graduated rates. Since consumption as a percentage of income is lower for higher income classes than for lower income classes, valued-added taxes are considered regressive. However, to more fully assess the degree of regressivity of value-added taxes, one must take into account factors besides the fraction of consumption to income across income classes. This section discusses three factors important in determining the degree of regressivity in a VAT: (1) alternative standards for measuring ability to pay; (2) the comprehensiveness of the consumption tax base; and (3) the ability of businesses to pass the tax burden along to consumers in the form of higher prices (i.e., the economic incidence of the value-added tax).

1. Alternative measures of ability to pay

Horizontal and vertical equity.—For purposes of determining equity in taxation, economists commonly focus on individuals' tax-paying capacity, i.e., their ability to pay. Although evaluations of the equity of taxation are ultimately value judgements where economics as a discipline can offer few policy prescriptions, public finance economists have developed some guideposts for evaluating equity. It is generally agreed that two taxpayers with equal ability to pay should pay the equivalent tax ("horizontal equity"). There is, however, a wide range of views about how much more those with greater ability to pay should be taxed than those with less ability ("vertical equity)". If all taxpayers are taxed on the same percentage of some measure of ability to pay, the tax system is considered "proportional." If taxpayers with greater ability to pay are taxed on a larger percentage of their income than those with less income, the tax system is considered "progressive." Conversely, if taxpayers with lesser ability to pay are taxed on a larger percentage of their income than those with more income, the tax system is considered "regressive."

Annual income.—Economists have long advocated a comprehensive measure of income as a measure of ability to pay.[49] Although income is commonly measured on an annual basis, it is recognized that there are significant shortcomings with using annual income as an indicator of ability to pay. First of all, an individual may be subject to wide swings in income from year to year. In this case, a "snapshot" of income in any one year would be a misleading indicator of ability to pay. Second, over the course of a lifetime, annual income will vary according to age, where income is low during school years, peaking toward the end of one's working years, and declining in retirement. Low annual income may incorrectly indicate a low ability-to-pay for college students or retirees, and probably should not be considered equal to the ability-to-pay at the peak of one's career.

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[49] See, for example, Henry Simons, *Personal Income Taxation*, Chicago: University of Chicago Press, 1938; and Richard Goode, "The Superiority of the Income Tax," in Joseph Pechman (ed.), *What Should Be Taxed: Income or Consumption?* Washington, D.C.: Brookings Institution, 1980.

Lifetime income.—Accordingly, many economists have argued that lifetime income (or some average of income over several years) is a better indicator of ability-to-pay.[50] With lifetime income as the measure of ability-to-pay, the degree of regressivity of consumption taxation is significantly modified. Over an individual's lifetime, consumption is roughly equal to income.[51] Therefore, a broad-based consumption tax is considered much less regressive and perhaps even proportional when lifetime income is used as the measure of ability-to-pay.

It has been widely observed that annual consumption is much less variable than annual income, and that annual consumption is more likely to be a function of lifetime income than annual income.[52] Based on this observation, some have even advocated annual consumption itself as a measure of ability to pay since it is a good proxy for average lifetime income.[53] Others have advocated consumption itself not because it is a good proxy for income, but because it is a better measure than income of economic well-being. If a tax system is considered "fair" when two individuals with the same wealth at the beginning of their lives and the same abilities to earn wage income are taxed equally, then consumption is a better tax base than income. This is the case because (if an individual neither receives nor leaves bequests) the present value of lifetime consumption equals the present value of his lifetime earnings, while a present value of lifetime income will vary with the timing of savings. The present value of a consumption tax is then proportional to economic well-being but the present value of an income tax will vary for individuals with equal measures of economic well-being and, in fact, will increase with the rate of savings.[54]

2. Comprehensiveness of the consumption tax base

Although it is widely recognized that a value-added tax is equivalent to a retail sales tax, as a practical matter, even a broad-based VAT excludes significant components of consumption. For example, application of the VAT to consumption in the form of owner-occupied housing, to services provided in the home, or to foreign travel is not considered administratively feasible. Therefore, it may be incorrect to assume that VAT liability is proportional to consumption broadly defined. The scope of consumption items not covered by a VAT can significantly alter the degree of regressivity.

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[50] If individuals do not have easy access to well developed financial markets, the appropriateness of lifetime income as a measure of ability-to-pay should be qualified. For example, if a individual is credit-constrained, lifetime income may overestimate a low-income individual's ability to pay.

[51] Lifetime income may exceed lifetime consumption (in present value) when an individual receives large bequests or gifts (and these receipts are not considered income). Lifetime income may be less than lifetime consumption (in present value) when an individual makes bequests or gifts (and these payments are not considered consumption).

[52] See, for example, Milton Friedman, *A Theory of the Consumption Function*, Princeton, N.J.: Princeton University Press, 1957.

[53] See James M. Poterba, "Is the Gasoline Tax Regressive?" in N.B.E.R. Conference Report (David Bradford, ed.), October 1990.

[54] The Treasury Department discusses the relative merits of a consumption and income tax base in its 1977 tax reform study. See, Department of the Treasury, *Blueprints for Basic Tax Reform*, January 17, 1977, pp. 38-41.

1984 Treasury study findings on the comprehensiveness and distribution of a broad-based VAT

As part of its 1984 tax reform study (commonly referred to as "Treasury I"), the Treasury Department issued a report on value-added taxation.[55] In that report, a "realistic" broad-based credit-invoice VAT was developed as a baseline for comparison with other versions of value-added taxes with exclusions for food and other necessities. Even this comprehensive VAT was estimated to include only 77 percent of total personal consumption expenditures. In these calculations, some components of consumption, such as foreign travel, provision of services in the home (e.g., child care, house-keeping) by individual employees, rental services from owner-occupied housing, and services provided by financial institutions generally would not be taxed under a comprehensive VAT base for administrative reasons. Other components of consumption, such as physician's fees and religious and welfare activities, are excluded because it was anticipated that under any politically realistic VAT they would be relieved of the tax. The relationship between total consumption and the 1984 Treasury Report's comprehensive VAT base is shown in Table 1.

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[55] Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Volume 3, Value-Added Tax*, November 1984.

Table 1.—Estimate of Value-Added Tax Base

[Dollar amounts in billions]

Category	1988 levels of expenditures	Percentage of total personal consumption expenditures
Total personal consumption expenditures	$3,127	100.00
Less:		
Rental value of owner- and tenant-occupied housing (including farms)	460	14.7
Medical care (including health insurance)	232	7.4
Insurance and finance (other than health insurance)	74	2.4
Education	48	1.5
Religious and welfare	47	1.5
Foreign travel	13	0.4
Local transportation	8	0.3
Other: Food produced and consumed on farms, military-issued clothing, domestic services	7	0.2
Plus: Sales of new housing	170	5.4
Net comprehensive value-added tax base	$2,408	77.0

Source: Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Vol. 3, Value-Added Tax*, 1984, p. 86.

The distribution of a 10-percent VAT on the 1984 Treasury Report's base across income classes is shown in Table 2. The income concept employed by this table is family economic income, which starts with adjusted gross income and adds items such as tax-exempt interest, untaxed social security and AFDC benefits, and untaxed employer contributions for retirement and health benefits. In addition, adjustments are made to account for undistributed corporate earnings and the effect of inflation on interest income.[56] Table 2 indicates that a VAT would impose a substantially larger relative burden on the lowest income class. For the lowest income class on the table, with family economic income between $0 and $10,000, taxpayers would pay VAT equal to 14.2 percent of their family economic income. Tax paid equal to 14.2 percent of income with tax liability equal to 10 percent of consumption implies that consumption on average exceeds measured income for the lowest income class. This is the case for households that are consuming out of savings or by increased borrowing due either to temporary unemployment or to retirement.

For the top income class on the table, with family economic income in excess of $200,000, taxpayers would pay VAT equal to only 1.8 percent of their family economic income. This low percentage of tax paid as a percentage of family income can be attributed to the relatively low ratio of consumption to income in the higher-income brackets. This low tax rate can occur because of temporary increases in income that do not proportionately increase consumption or because of proportionately greater planned savings for retirement or children's education for higher income classes. Consumption as a percentage of gross income may be lower for upper-income households because of progressive taxes at the local, State, and Federal levels. In addition, the 1984 Treasury Department Report suggested that the relatively low level of VAT on upper-income households may also be attributable to a larger percentage of their expenditures on consumption of items, such as foreign travel and services performed in the home, that would not be included in the base of even a broad-based VAT.

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[56] For a more complete description, see Appendix 4-A to Department of Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Volume I, Overview*, 1984.

Table 2.—Distribution of Value-Added Tax Alternatives as a Fraction of Economic Income by Income Class

[Tax rate of 10 percent]

VAT base	Family economic income class (in thousands of dollars)[1]								
	0–10	10–15	15–20	20–30	30–50	50–100	100–200	200 and over	Relative cost of alternatives[2]
	(Value-added tax paid as a percent of economic income)								
Value-added tax (VAT) (broad base)	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	—
VAT with zero-rating of necessities (narrow base)[3]	8.9	5.9	4.8	4.1	3.3	2.7	2.3	1.7	28.8

[1] Restricted to families with nonnegative incomes.

[2] The cost of each alternative is expressed as a percentage of the revenue from a value-added tax on the comprehensive base at 1988 levels.

[3] Narrow base provides for zero rating of home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services.

Source: Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Vol. 3, Value-Added Tax*, 1984, p. 111.

3. Economic incidence of the value-added tax

Economic incidence generally.—The preceding discussion assumed that although businesses are legally obligated to pay VAT liability, the economic burden of the tax is borne by consumers since business generally will pass along the burden of the tax in the form of higher prices (to the extent market competition will allow). If the tax burden is borne by consumers of final goods, as is often assumed, the burden of the tax is proportional to consumption. Since annual consumption as a percentage of annual income declines as annual income increases, the VAT is considered regressive.[57] It is not at all certain, however, that the entire VAT is actually borne by consumers in the form of higher prices. If all of the VAT is not reflected in higher retail prices, some of the burden of the tax may not be shifted to final consumers but will be borne by business owners (shareholders).

In general, the economic incidence of any tax is determined by the relative ability of buyers and sellers to change their behavior in response to the tax burden. The economic agents least able to respond usually bear the greatest share of the burden. For example, if a manufacturing facility can only produce oak chairs, and consumers like maple chairs just as well as oak, a tax on oak chairs will be borne by sellers of oak chairs. On the other hand, if the manufacturing facility can easily convert to producing another product, and consumers strongly prefer chairs made of oak, the burden of the tax will be borne by consumers. With a broad-based consumption tax, such as a comprehensive value-added tax, consumers generally cannot re-arrange their consumption patterns significantly to reduce taxation. It is therefore generally assumed that the burden of value-added taxes are passed along to consumers. This result would be consistent with consumers being inflexible in the overall amount of their consumption (although their consumption of any particular product might be greatly affected by consumption tax targeted to a particular product).

Market structure.—If markets are perfectly competitive, producers' earnings are not extraordinary and their prices are as low as possible given their costs. In this situation, producers cannot absorb any cost increases in the form of taxes unless they take losses, which eventually will drive them out of business. Therefore, economists routinely assume that in perfectly competitive markets, because profits cannot be reduced, broad-based taxes on sales must be passed along to the consumers in the form of higher prices. The assumption of perfectly competitive markets may not hold, however. If producers have any degree of market power, they are earning above-average profits and have the potential to hold prices at their pre-tax levels and absorb tax increases.

D. Methods of Alleviating VAT Regressivity

Among the issues most frequently included in discussions of value-added taxation are possible methods of reducing regressivity of the VAT. Three often mentioned regressivity offsets are (1) increasing transfer payments to low-income households, (2) rebating value-added taxes to low-income households, and (3) zero-rating expenditures for certain necessities which account for a larger fraction of income of low-income households than high-income households.

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[57] If lifetime income is considered the more relevant measure of economic well-being, the observed degree of regressivity will be substantially less since lifetime consumption as a percentage of lifetime income does not vary as much among (lifetime) income classes.

1. Automatic and mandated increases in transfer payments

It is commonly believed that value-added taxes will be fully reflected in higher prices. If this is indeed the case, a value-added tax of 10 percent would increase the price level by 10 percent if all goods were subject to the tax.[58] Because many transfer payments are automatically indexed to the rate of inflation, recipients of transfer payments will have the effects of the tax at least partially offset. In the limiting case where a household receives all its income in the form of indexed transfer payments, the household will be fully insulated from the effects of the tax. However, while many transfer payments (such as social security) are indexed to the rate of inflation, many (including unemployment compensation) are not. Of course, increases in transfer payments may be mandated by statute in order to offset more completely the effects of a VAT on low-income households. In the case of either automatic or mandated increases in transfers, the solution is incomplete since many low-income families do not receive any transfer payments and increased funding for transfer payments can only be fully effective by expanding eligibility and increasing public awareness of available assistance.[59]

2. VAT rebates for low-income households

The regressivity of a VAT could be lessened by rebating VAT liability to low-income families. Since the VAT is not implemented as a personal tax but as a business tax, it is more difficult to provide targeted relief for low-income families than is the case with the personal income tax. Since families with very low income are unable to set aside income for saving, VAT liability for these families could be imputed as a percentage of income. VAT rebates could be implemented as credits to income tax. Since many low-income taxpayers do not file income tax returns, the implementation of rebates through the income tax would entail substantial new administrative and compliance costs. As an alternative to implementing rebates through the tax system, a separate administrative structure could be constructed solely for the purpose of providing rebates.

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[58] If a value-added tax does not apply to all retail goods, it can be expected that the price level will not rise by a percentage fully equal to the rate of tax (even if the VAT is fully passed along to consumers in higher prices). As explained below, even in a value-added tax with as few exceptions as possible, not all consumption goods are included in the tax base. Exemptions for necessities as well as expensing of capital goods used by business can be expected to reduce the increase in the price level below the rate of tax.

[59] It is important to note that some "low-income" households which appear in the distributions by annual income are only so classified because of temporary declines in income (for example, due to business losses or leaves of absence for professional training). Relief for such households may not be as large a concern as is assistance for households with permanently low income.

3. Zero-rating of necessities

To alleviate regressivity, most established value-added tax systems employ zero or low rates of tax on food and other consumption items that account for a relatively large percentage of the income of lower-income households. Because of the extreme difficulty of implementing a multiple-rate subtraction method VAT, special rates for necessities make a credit-invoice method of implementing the VAT much more attractive. In any case, however, the costs of implementing a multiple-rate VAT relative to a single rate can be expected to be much higher.

The higher costs are not only administrative and compliance costs but also costs in economic efficiency. Consumers will be provided incentives to reallocate their consumption toward items deemed to be necessities. For example, if food eaten on premises is not zero-rated but carryout food is not, consumers may eat off premises just to save tax even though they would prefer eating in the restaurant. More generally, consumption patterns will be distorted and will shift toward items receiving preferential rates. Furthermore, to achieve a given revenue target, a VAT with a narrow base must have a higher rate of tax than a broad-based VAT, further increasing economic distortions of the tax.

Probably the most effective argument against special treatment of necessities, however, is the inefficiency of this method in achieving the goal of reducing regressivity. While the transfer payments and rebates discussed above can be targeted and provided only to low-income households, much of the benefit of zero-rating necessities accrues to high-income households. This is because high-income households spend more (in absolute terms) on necessities than low-income households.

More important, however, is the fact that although the zero-rating of necessities reduces the regressivity of a VAT, it does not eliminate regressivity (at least when the convention of using annual income is adopted as the measure of ability to pay). This result is apparent from Table 2, which has been abstracted from the 1984 Treasury Report on value-added taxes. The table shows that under a 10-percent VAT, the lowest income class (with incomes of less than $10,000 at 1983 levels) would pay VAT equal to 14.2 percent of family economic income, while the highest income classes (with incomes of more than $200,000 at 1983 levels) would pay VAT equal to 1.8 percent of family economic income. A 10-percent VAT on a narrow base (zero-rating of home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services) leaves the lowest income class with a tax equal to 8.9 percent of family economic income and the highest income class nearly unchanged with a VAT equal to 1.7 percent of family economic income.

Furthermore, if there is a given revenue target, the absolute burden of the poor will only moderately be alleviated with zero-rating of necessities. According to the same table, a narrow-based VAT with zero-rating of necessities will raise 28.8 percent less revenue than a broad-based VAT. Thus, in order for a narrow-based VAT to be revenue-neutral as compared to a 10-percent broad-based VAT, the rate of the narrow-based VAT would have to increase to approximately 14 percent. In this case, the burden of the VAT for the poorest income classes would be reduced only from 14.2 to 12.5 percent by revenue-neutral substitution of a broad-based VAT with a narrow-based VAT. Thus, the data presented in the 1984 Treasury Report show that zero-rating of necessities provides only modest relief to low-income households. According to the data, other features, such as a targeted rebate of value-added taxes to the lowest income classes must be included *in addition to zero-rating of necessities* to offset the regressivity of the underlying VAT.

The acceptance among tax administrators and economists of the superiority of a single-rate VAT is widespread, as indicated in the following quotations:

> Government tax administrators and business representatives agreed that multiple rates for domestically distributed goods and partial exemptions are the main factors contributing to administrative difficulties. Those countries which used these to a great extent experienced significant difficulties with their VAT systems. For example, both government and business representatives in Italy stated that the use of seven rates has greatly complicated government administration and business compliance. In contrast, VAT administrators in Denmark indicated that their adoption of a single-rate system has greatly simplified administration and tax compliance.[60]

> The US is in an enviable position that it can learn from the mistakes made elsewhere and, like New Zealand, it can opt for a broad-based, single-rate VAT with regressivity adjustments elsewhere in the tax and transfer system. . . . . The arguments against differentiated rates are manifold. Rate graduation is a very blunt and expensive instrument to mitigate regressivity. In absolute amounts, the rich benefit more than the poor.[61]

> In general, any attempt to lessen the absolute burden of a value-added tax on the poor and reduce the regressivity of the tax by excluding various categories of goods and services from the tax cannot fully solve the equity problem, and almost invariably would cause discrimination, loss of economic efficiency, and unnecessary loss of revenue. . . . Zero rating [of necessities] would reduce the revenue from a comprehensive value-added tax by nearly 30 percent. It would materially complicate the tasks of both taxpayers and the IRS, and perhaps pave the way for evasion of the tax.[62]

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[60] U.S. General Accounting Office, *The Value Added Tax in the European Economic Community* (December 5, 1980), p. 9.

[61] Cnossen, Dr. Sijbren, "Remarks on Value-Added Taxes," Faculty of Economics, Erasmus University, Rotterdam, The Netherlands. Washington, D.C., November 1988.

[62] Department of Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Volume I, Overview*, 1984, p.

E. Effects of a VAT on International Trade

1. Possible reduction in the trade deficit from increased savings

Because border tax adjustments provide rebates on exported goods and impose taxes on imported goods, they may appear to provide subsidies for exports and disincentives to imports. In fact, however, border tax adjustments provide neither incentives nor penalties for international trade (as discussed below). The primary potential benefit of a value-added tax on international trade is the possibility that the imposition of value-added taxes will reduce the deficit and thereby increase savings or it will curtail the rate of growth of income taxation and increase savings by reducing the penalties on saving imposed by the income tax. The possible effects of consumption taxes on savings are discussed above in II. B. "Consumption Taxes and Savings."

2. Border tax adjustments and international trade

a. In general

A VAT based on the destination principle imposes tax on imports and provides tax rebates on exports. These import fees and export rebates are commonly referred to as border tax adjustments and are a fixture of most value-added tax systems currently in place. They are also fully consistent with GATT rules, as long as they do not discriminate against imports or provide over-rebates on exports. Since the tax on imports has the appearance of a protective tariff, and the rebate on exports has the appearance of an export subsidy, it is commonly believed that a VAT (based on the destination principle) would help the U.S. balance of trade. However, economists have long held that there is no direct effect of a VAT on the volume of exports or imports.[63] In fact, the imposition of a tax on imports—equal to that imposed on goods produced domestically—and a similar tax rebate on exports is intended to maintain a level playing field between domestic and foreign producers in their competition for business in both domestic and foreign markets.

To help understand why border tax adjustments do not distort or subsidize international trade, consider the following example. Suppose a certain good produced both overseas and domestically, such as wheat, sells at $4 (per bushel). With the enactment of a broad-based U.S. VAT at a rate of 10 percent, the price of wheat in the U.S. would increase by 10 percent to $4.40 (under the assumption that the tax is passed forward to consumers) for wheat produced domestically as well overseas since both are subject to the tax—the domestically produced wheat being subject to the normal value-added tax and the wheat produced overseas subject to the import tax at the same rate as the VAT. Thus, even though imports are subject to tax, U.S. buyers' choice between imported and domestically produced wheat is not altered.

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[63] See, for example, Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," in Assaf Razin and Joel Slemrod (eds.) *Taxation in the Global Economy*, Chicago: University of Chicago Press, 1990 ("A VAT is not, contrary to popular belief, a tariff-cum-export subsidy. In fact, a VAT is no more inherently procompetitive trade policy than a universal sales tax . . . . The point that VATs do not inherently affect international trade flows has been well recognized in the international tax literature." (p. 263)); and Charles E. McLure, *The Value-Added Tax: Key to Deficit Reduction?*, Washington, D.C.: American Enterprise Institute, 1987 ("Although this patently absurd argument is heard less frequently now than in earlier episodes of the continuing debate of the pros and cons of the VAT, it is encountered often enough that it deserves brief discussion." (p. 56)).

Similarly, foreign consumers' choice between goods produced in the U.S. and goods produced in their own country is not altered even though U.S.-produced goods are provided VAT rebates when exported. Wheat produced outside of the U.S. and sold to foreign consumers remains at its world price of $4.00 and wheat produced inside the U.S. remains at $4.00 since no U.S. VAT is imposed on the exported wheat.

From the preceding discussion it might seem that a value-added tax without border tax adjustments (an origin principle VAT) could disadvantage domestic producers relative to foreign producers in overseas markets. However, border tax adjustments may not be the only mechanism operating to maintain neutrality. Other self-executing adjustments by the markets, such as reductions in wage rates or in the value of the domestic currency, could wholly offset any potentially detrimental trade effects of origin-based taxation on exported goods.

Continuing the above example, if the world price of wheat is $4.00, the burden of the tax cannot be shifted forward to consumers in the form of higher prices. If the markets are competitive, the seller cannot both reduce price and remain in business. However, labor may bear the burden of the tax through reduced wages. This allows the seller to remain in business with a price of $4.00. Therefore, there is no effect on foreign trade. Alternatively, the domestic currency may depreciate so that although the *nominal* price has increased to $4.40, the price paid for domestic wheat by foreign consumers in their currency is unchanged from its before-tax level.[64]

b. Comparison of a VAT with the corporation income tax

It is sometimes argued that a VAT or a retail sales tax might boost the competitiveness of U.S. firms vis-a-vis imports or foreign-owned U.S. firms. In the case of imports, it might be argued that foreign firms enjoy access to U.S. markets but bear no U.S. tax since under the source principle no U.S. income tax is imposed on imported goods. In the case of goods produced by foreign-owned U.S. firms importing near-finished goods from the foreign parent company, only a small amount of total income properly allocable to the sale of that product is subject to U.S. corporate income tax.[65] In either case, the foreign firm may pay little U.S. tax, while its U.S. competitor is fully subject to the corporate income tax. However, if the products sold in the U.S. by both foreign- and U.S.-owned firms were both subject to a VAT instead of a corporate income tax, both classes of firms would incur the same U.S. tax liability. Therefore, it is argued that the competitiveness of U.S.-owned firms would be enhanced by the imposition of a value-added tax, if the VAT replaced part or all of the corporate income tax.

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[64] See Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," in Assaf Razin and Joel Slemrod, eds. *Taxation in the Global Economy*, Chicago: University of Chicago Press, p. 270.

[65] In addition, possible problems in the administration of related-party transfer rules may further reduce the amount of U.S. tax imposed on foreign-owned U.S. corporations. For a discussion of these issues, see Joint Committee on Taxation, *Present Law and Certain Issues Relating to Transfer Pricing (Code Section 482)* (JCS-22-90), June 28, 1990.

Because of economic adjustments, either through changes in the price of taxed goods or through changes in the exchange rate, the above line of reasoning is generally incorrect. It is often assumed that value added taxes are passed along to consumers in the form of higher prices, and it is assumed that corporate income taxes are borne by owners of capital.[66] In this case, the conclusion does not hold. Under these assumptions, although domestic and foreign producers may be subject to different corporate tax burdens, none of this is reflected in higher prices, and the relative attractiveness of goods produced by U.S.- and foreign-owned firms is not affected. On the other hand, value-added taxes would raise prices uniformly for the goods of both domestic- and foreign-owned firms, but the relative attractiveness of their goods would be unaffected. Therefore, under these assumptions, a VAT, as compared to a corporate income tax, does not directly improve the U.S. balance of trade by raising the price of goods of foreign-owned firms.

Although many economists assume that corporation taxes are borne by capital, there is no definitive evidence that this in fact is the case. However, assumptions about the incidence of corporation tax do not affect the conclusion about its effect on international trade. If the corporation tax increases prices instead of reducing profits, under a system of flexible exchange rates, an offseting adjustment in the exchange is likely to occur and eliminate any disadvantage to exports from increased prices.

3. GATT rules and border tax adjustments

Under the General Agreement on Tariffs and Trade ("GATT"), rebates for exports and taxation of imports are generally allowed in the case of indirect taxes but not for direct taxes. Sales taxes and credit-invoice value-added taxes are considered indirect taxes, and income taxes are considered direct taxes. Thus, unlike an income tax, a credit-invoice VAT may be imposed on imports and rebated on exports under GATT rules.

Border tax adjustments under a credit-invoice VAT would be consistent with current GATT rules, as long as they do not discriminate against imports or provide rebates on exports in excess of the tax. However, there is considerable uncertainty as to whether a subtraction-method VAT would be legal under GATT. The distinction may be made that a subtraction-method VAT, unlike a credit-invoice VAT, is not imposed on particular transactions but directly on a business, where the tax base is equal to the business's value added. In this technical respect, a subtraction-method VAT may more closely resemble a corporate income tax than a sales tax.

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[66] As discussed above in section III.C of this part, the burden of consumption taxes such as the value-added tax is widely assumed to be passed along to consumers. However, this assumption is not beyond reasonable dispute. There is much less agreement about the corporation income tax. A large body of public finance literature has focused on the "Harberger model," which concludes that the corporation income tax is borne by all capital. However, the Harberger model assumes that savings is not responsible to changes in tax rates and that capital is not mobile across international borders. To the extent that these assumptions are not correct, the burden of the tax may be partially or totally borne by consumers.

Although there are important differences in the administration of a subtraction-method VAT and a credit-invoice method VAT, there is no reason to expect that there will be substantial difference between these two taxes with regard to their incidence or to their effects on international trade. For the same reasons, there should be no difference between the two taxes with regard to the proper role of border tax adjustments. However, the possible illegality of border tax adjustments of a subtraction-method VAT under GATT rules looms as a substantial practical deterrent to the implementation of a subtraction-method VAT.

F. Inflationary Impact of a Value-Added Tax

Because value-added taxes are commonly believed to increase prices by the amount of tax, and because value-added taxes are broad based, it is generally expected that under certain conditions a VAT may increase the rate of inflation significantly. The degree by which it would raise the rate of inflation depends on the rate of tax and the comprehensiveness of the base. In general, any increase in the rate of inflation will be less than the rate of tax. For example, if a 10-percent VAT is levied in an economy with output equal to $1000, but the tax base is only $700 (because, typically, investment goods are excluded from a consumption-based VAT, and government as well certain other consumption goods are zero-rated), the most the rate of inflation may be expected to increase would be 7 percent. However, the rate by which inflation may increase will ultimately be determined by macroeconomic policy, especially monetary policy. If the Federal Reserve Board does not accommodate the upward pressure on prices from the tax by increasing (i.e., by 7 percent in the above example) the supply of money adequately, the overall price *level* would not be expected to increase (although the price of taxed goods *relative* to zero-rated goods would still increase). Finally, it is also important to note that since the VAT only raises the price level when it is imposed, any increase in the price level would most likely be a one-time event.

III. BASE FOR A VALUE-ADDED TAX—ANALYSIS OF SPECIFIC ISSUES

Tax commentators generally agree that the simplest and most efficient VAT would apply to all goods and services and all levels of production. However, in countries that have imposed VATs, many goods and services or classes of taxpayers are excluded from the VAT for economic, social or political reasons. In addition, certain items are excluded from the VAT because of the administrative difficulty in measuring the value added related to those items. This part of the pamphlet provides a discussion of certain specific issues that arise with respect to the treatment of various items under a VAT.

A. Sales of Goods (Nonfood Products)

A basic VAT would subject the sale of goods to tax. However, even such a simple statement raises potential issues regarding what exchanges constitute taxable sales and what types of property constitute taxable goods.

Definition of sales

Taxable sales would not necessarily be restricted to the sale of property for cash in the usual sense, but could include the exchange of property for property,[67] for services (including the transfer of property to an employee as compensation), or in discharge of a debt. As a general rule, the VAT should apply to as broad a base as possible, but for administrative reasons it may be appropriate to exclude casual sales of property or sales by certain small businesses. Taxable sales could be defined as all exchanges of property (including casual sales among consumers), sales pursuant to any activity that is regularly carried on (including sales pursuant to a hobby) [68], sales pursuant to any activity that is regularly carried on as a business, or all business sales plus casual sales over a certain threshold amount.

Installment sales

A purchaser may often acquire a good pursuant to an installment plan under which the purchaser takes title to the good on the date of acquisition and makes a series of deferred payments of the purchase price (plus interest) in subsequent periods. For Federal income tax purposes, dealers in goods generally must report income from the transaction in the year of the sale. Casual sellers of property, on the other hand, may use the installment method to defer reporting income under the sale until such time as cash is received or the installment receivable is pledged in a borrowing.[69]

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[67] Such an exchange presumably would include a like-kind exchange of property which would be tax-free under section 1031 of the Code. Administrative and procedural issues arise as to how the VAT would be collected and reported on such a transaction without affecting its tax-free status under the income tax.

[68] See, New Zealand Stat. 1985 No. 141, sec. 8(1) (New Zealand Goods and Services Tax Act) which subjects hobby transactions that are regularly carried on to tax.

With respect to goods sold on the installment plan, the issue is whether the entire amount of VAT should be imposed on the date of sale, or whether the payment of the VAT should be deferred until payments are made under the installment plan.[70] Those who argue against deferral claim that the source of financing for the purchase of goods is irrelevant and that deferral complicates the administration of the VAT. They point out that if a consumer used his or her savings, or borrowed from a bank, to buy the good, the VAT would be imposed on the date of sale. To apply a different rule for seller-financed sales would discriminate in favor of such transactions. Those who support the deferral of VAT argue that installment plans are offered by sellers to ease the cash constraints of buyers, and imposing the tax upon the acquisition of the good would increase such constraints (to the extent the tax is not itself financed under the installment plan).

Regardless of the method chosen for the treatment of installment sales under the VAT, commentators have stated that the treatment of purchasers and sellers should be consistent. That is, if the seller of the good is allowed to remit the VAT on the installment basis, the purchaser should be treated similarly with respect to the VAT credit.[71] Other commentators claim that if the VAT is allowed to be paid on an installment basis, the tax should be imposed on the principal components of the installment payments and the interest components should be treated separately. Others would also subject the interest component to the VAT.[72]

Treatment of used consumer goods

The treatment of used consumer goods also presents certain difficult issues.[73] Many original consumers of tangible property sell such property after a time to other consumers. As a practical matter, it is likely that such sales would not be subject to the VAT. Alternatively, the original consumer could sell the used good to a dealer who, in turn, would sell it to a second consumer. If the subsequent sale by the dealer is subject to the VAT, the good would have been subject to tax twice—once when the good is acquired by the original purchaser and again when acquired by the subsequent purchaser—without any related VAT credit between the two tax events.[74] Such duplication could be relieved by providing that the tax on the second sale be based only on the value the dealer adds to the transaction, such amount being measured by the difference between the dealer's sales and purchase price for the used good. Alternatively, the dealer of used goods could be allowed an imputed credit on the used goods it purchases from nontaxed consumers.[75]

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[69] See, sections 453 and 453A of the Internal Revenue Code.

[70] These issues presumably arise with respect to State and local taxes imposed on retail sales made under installment plans.

[71] See, "Design Issues in a Credit Method Value-Added Tax for the United States," American Institute of Certified Public Accountants, May 1990.

[72] Compare, Alan Schenk and Oliver Oldman, "Analysis of Tax Treatment of Financial Services Under a Consumption-Style VAT: A Report of the American Bar Association Section of Taxation Committee on Value Added Tax," *Tax Lawyer*, Vol. 44, No. 1, p. 181, 187 (1991) to the *Treasury Report for Fairness, Simplicity, and Economic Growth*, Treasury Department Report to the President (hereinafter "Treasury Report"), Vol. 3, 1984, p. 51. For the treatment of interest under a VAT see the discussion below in this part of the pamphlet.

[73] See, the Treasury Report at p. 78.

[74] No VAT credit would be available because the original consumer would be considered to be an exempt person ineligible for the credit.

B. Treatment of Intangibles

Intangible property in general

Taxable goods would generally include any property sold in a taxable transaction. However, if the VAT is intended to be a tax upon consumption and not saving or investment, sale of such intangible property as stocks, bonds, securities, and other financial products would not be subject to tax. Other types of intangible property that would normally be consumed (such as franchise rights, patents, copyrights, and other intellectual property) would normally be subject to tax.[76]

Any dichotomy in the treatment of tangible versus intangible property raises certain issues. For instance, certain assets possessing characteristics of both tangibility and intangibility (such as computer software) would be difficult to classify for purposes of taxation. Such classification issues often have arisen in the area of State sales, use and property taxation and in the area of the investment tax credit as it existed before the Tax Reform Act of 1986.[77] In addition, other types of property, such as works of art and other collectibles, have both tangible and intangible features and are acquired for purposes of both consumption and investment.

In addition, if the sale of tangible property by a corporation is subject to the VAT, while the sale of intangible property by an individual is not, a shareholder who wishes to dispose of his or her wholly-owned corporate business may sell his or her stock rather than have the corporation sell its assets and liquidate in order to avoid the VAT.[78] Alternatively, an individual may wish to dispose of an asset that would otherwise be subject to the VAT (such as real property). To avoid the VAT, the taxpayer could contribute the property to a newly formed corporation and sell the stock (unless such transaction was subject to the VAT).

The use of intangibles

It is often difficult to characterize an agreement that provides for the transfer of the use of an intangible asset from one taxpayer to another as a licensing agreement or as an installment sale. So as to not favor one form of an similar transaction over another, both types of transfer arrangements should either be subject to, or excluded from, the VAT.[79]

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[75] This is the approach suggested by the ABA Report, at p. 106.

[76] See, however, Alan Schenk, *Value Added Tax—A Model Statute and Commentary, A Report of the Committee on Value Added Tax of the American Bar Association Section of Taxation* hereinafter "ABA Report"), 1989, at p. 152, recommending that all intangible property be exempt from the VAT. The ABA report suggests that the exclusion will not diminish the tax base since most intangible property is sold to taxable businesses which would be able to claim credits for the tax related to such purchases.

[77] See, for example, Robert W. McGee, *Software Taxation*, National Association of Accountants, 1984, chapters 1 and 3.

[78] Under the British VAT this is not a problem, as the U.K. Treasury has exercised its authority to rule that the transfer of a business as a going concern is not a transaction subject to tax. *See*, the ABA Report at p. 29.

Most VAT systems subject the licensing of intangibles to tax, either by providing a broad definition of taxable services or by specifically including the licensing of intangibles as a taxable service.[80]

C. Performance of Services

In general

The performance of services generally is subject to the VAT. Activities treated as taxable services could include (but would not necessarily be limited to) permitting the use of property, the granting of a right to the performance of services or to reimbursement (including the grant of warranties, financial services, insurance,[81] and similar items), and the making of a covenant not to compete (or a similar agreement to refrain from doing something). Many VAT jurisdictions provide that all sales of goods are subject to the VAT unless specifically excluded, but provide that services are subject to the VAT only if specifically included.[82] By providing a clear list of taxable activities, such a designation effectively exempts those services that are unsuitable for the tax (either because of social or administrative reasons).[83]

Treatment of employees

A person generally is not subject to VAT with respect to services he or she provides as an employee. These services would be incorporated into the value of the goods or services sold by the employer to customers and would be subject to the VAT upon sale. However, since services provided by nonemployees generally are subject to the VAT, the distinction between a nontaxable employee and a taxable independent contractor may become significant for such service provider. This distinction is also important for purposes may of the present-law payroll tax.

Mass transit

The performance of mass transportation services in urbanized areas raises certain issues. Since most urban mass transportation is subsidized by one or more levels of government in order to relieve problems caused by traffic congestion and pollution, it may be appropriate to exclude such services from the VAT.[84] If such services were taxed, fares would rise by the amount of the tax and ridership may fall, thus requiring increased subsidies. In addition, because of the relatively small dollar value of each purchase, there may be administrative gains from excluding these services. However, the exclusion of mass transportation could be viewed as an additional competitive disadvantage to other forms of taxable transportation (such as automobile sales) and may discriminate in favor of those consumers that live in areas that are easily accessible to public transportation.

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[79] The ABA Report, at p. 152, suggests exempting sales, but taxing licensing, of intangibles. The report does not discuss why it is appropriate to accord different treatment to the two transactions.

[80] See, James Duignan, "Technical Features of the Value-Added Tax in Europe," prepared for the International Monetary Fund, Fiscal Affairs Department, 1970, at pp. 19-22.

[81] See, the discussion of the special issues relating to insurance and financial services below.

[82] See, John Due, "Some Unresolved Issues in Design and Implementation of Value Added Taxes," *National Tax Journal*, Vol. XLIII, No. 4, p. 383, 386, December 1990.

[83] The Treasury Report, at p. 48, provides a list of activities that are "clearly suitable for taxation," including (1) public utility services, (2) services rendered by commercial establishments, (3) amusement and entertainment services, (4) transient accommodations and restaurant meals, (5) rental of taxable durable commodities, and (6) certain professional services.

[84] See the discussion below on the treatment of government-provided services.

Further, it may be difficult to define the types of transportation that qualify for the relief. For example, while bus or subway service within one city would likely qualify for the exclusion, it is unclear whether rail or air service between two cities in a densely populated area (e.g., within the Northeast corridor) should also qualify.

D. Imports and Exports [85]

A VAT may be designed on the origination principle, whereby goods and services are taxed where produced, regardless of where they are consumed, or on the destination principle, whereby goods and services are subject to tax where they are consumed, regardless of where they are produced. Virtually all present-day VATs are based on the destination principle. In order to implement the destination principle, exports must be relieved of the domestic VAT and the domestic VAT must be imposed on imports. This treatment of exports and imports is referred to as the border tax adjustment.

The border tax adjustment of a destination principle VAT serves two purposes. By taxing imports and not exports, the border tax adjustment generally ensures that the tax base for the VAT is domestic consumption and that all similar goods consumed in the jurisdiction (no matter where produced) bear the same amount of VAT. In coordination with VAT systems in other countries, border tax adjustments also ensure that value added taxes do not distort international trade and lead to neither taxation in multiple jurisdictions nor exemption from VAT in any jurisdiction. For purposes of performing the border tax adjustment, it is thus necessary to determine the location of potentially taxable transactions. The rules for determining the location of a transaction for tax purposes are known as source rules.

Under the destination principle, goods generally become subject to the VAT when they enter the taxing jurisdiction from abroad and the importer is liable for the tax. Previously imposed VAT generally is relieved when goods leave the taxing jurisdiction and such relief inures to the exporter. Thus, a taxpayer that exports all its goods under a credit-invoice VAT would be expected to receive a refund since the taxpayer would have no taxable sales but would be able to claim a credit for the tax borne by its purchases.

Services are typically more difficult to source than tangible goods. A VAT could source services according to where the services are performed. This rule, while administratively simpler than some other alternatives, violates the purest form of the destination principle. For example, a U.S. firm may contract for services performed abroad but for use in the United States; such a transaction presumably would not be subject to tax under such a rule. However, the destination principle argues that this transaction should be a taxable transaction. Since the seller of the services may have no other connection with the United States, it may be administratively infeasible either to collect the tax from the seller or to identify the purchase of the service as an import and levy the tax on the importer. Likewise, services performed in the United States for use abroad ought to be exempt from tax under a strict interpretation of the destination principle, but would be taxable under the rule described above.

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[85] See section II. E. of this part for a more detailed discussion of the treatment of exports and imports, including a discussion of the application of GATT.

The problem of some services provided abroad being exempted from domestic VAT may not be a serious problem. As long as the sales of the purchaser of the service is subject to VAT, no tax revenue will be foregone.[86] Since the cost of services provided would be reflected in the final sales of the purchaser, and thereby subject to tax, the full amount of VAT would be collected regardless of whether the seller of the service paid the VAT. The full amount of VAT would be collected because there would be no offsetting credit for previous VAT paid on the services purchased. Only in the case of exempt purchasers would the tax on foreign-provided services be avoided.

Value added taxes in other countries vary somewhat in their sourcing of services. The Sixth Directive of the European Communities generally provides for sourcing the service in the country where the supplier is established.[87] Under the directive, however, certain services, such as patent licenses, advertising, financial operations and certain others are sourced in the country of the establishment of the purchaser. It is necessary, therefore, under the directive, to determine the location of the seller's or purchaser's establishment. To the extent that sourcing rules can be harmonized among taxing jurisdictions, the number of transactions subject to tax by multiple jurisdictions or no jurisdictions can be reduced or eliminated.

Services performed both inside and outside the United States, such as international transportation and communications services, present additional issues. Such services could be sourced entirely within or without the United States, depending on where the bulk of the services are performed or enjoyed. Alternatively, services could be apportioned both within and without the United States based on the relative performance or enjoyment of the services or based on an arbitrary allocation ratio.[88] An all-or-nothing rule would place significant pressure on determining where the bulk of the services occurred; a specific tracing rule may be subjective and administratively difficult.

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[86] However, to the extent ultimate consumers purchase foreign services, exempting such transactions would result in tax revenue being foregone. For example, a U.S. person may hire a foreign architect to design a U.S. residence.

[87] Sixth Council Directive of May 17, 1977, "On the Harmonization of the Laws of the Member States Relating to Turnover Taxes-Common System of Value Added Tax: Uniform Basis of Assessment," Official Journal No. L145, reprinted in 2 CCH Common Mkt. Rep., par. 3165 (1977).

[88] The Internal Revenue Code, for purposes of determining whether income is within or without the United States, generally allocates and apportions income and expense between U.S. and foreign source income, including gross income earned partly within and without the United States (sec. 863). Special rules apply for international transportation and communications income so that one-half of the income is sourced within the United States and one-half without.

E. Food, Farmers, and Fishermen

Food

Most VAT systems in other countries provide some sort of relief for purchases of food, generally on the grounds of the perceived regressivity of the VAT. Those who favor a tax on all consumption argue that an exclusion for food (as well as other items normally considered to be necessities of life) favors those with higher incomes who are better able to afford more expensive foodstuffs. They would propose other ways to combat any regressivity imposed by a broad-based VAT, including income tax relief or increased means-tested government assistance. In addition, those who favor a broad-based VAT argue that providing exclusions from the VAT may create artificial consumer demands for the excluded products or services.

VAT systems in other countries have addressed the regressivity issue with respect to food by providing different VAT rates for different types of food, with "luxury" items bearing a greater tax rate.[89] Such systems, however, impose administrative burdens of identifying goods that are similar but are differently taxed. For instance, some VATs distinguish between food prepared and consumed on the premises, and food prepared on the premises but consumed at home.[90] Such distinctions may result in the different tax treatment of identical items purchased at a facility that offers the purchaser the option of either eating on the premises or carrying food out (e.g., a fast food restaurant).

Farmers and fishermen

The treatment of farmers and fishermen under a VAT may be somewhat related to the treatment of food. For example, if the retail sale of foodstuffs is excluded from the VAT, it may be appropriate also to provide exclusions for food producers, on the theory that any tax related to their production will be relieved in any event. On the other hand, certain agricultural produce may or may not become a food for human consumption. For example, corn may be eaten by humans, fed to livestock, distilled into a gasoline additive or alcohol, or popped and used as a packaging material. A farmer may or may not know how the corn produced will be used. In such cases, it may be more appropriate to provide VAT relief when the use of the agricultural product is clear (usually at the retail stage).[91]

The treatment of farmers and fisherman raises other concerns. The 1984 Treasury Report[92] states that it is not feasible to treat

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[89] For example, Italy imposes an 18-percent VAT on the purchase of pate and fancy chocolates, but only a 2-percent VAT on bread and pasta.

[90] It is reported that the VAT in the Netherlands makes such distinctions. See, Citizens for Tax Justice, *No Sale: Lessons for America from Sales Taxes in Europe*, December 1988, p. 7.

[91] As demonstrated in Examples 5 and 7 in Section I of this part, certain VAT exclusions, when provided at the retail stage, result in relieving all the VAT collected throughout the production and distribution process of a good or service.

[92] Treasury Report, at p. 61.

farmers and their products the same as other segments of the economy. The report suggests that it may be appropriate to exempt farmers from the VAT since including the large number of small farmers in the VAT system would tend to increase administrative costs and burdens for both the government and taxpayers. In addition, some sort of exclusion may be appropriate since a relatively large percentage of U.S. agricultural produce is shipped overseas and a VAT system designed consistently with the destination principle would zero rate exports.

Exemptions are generally used to exclude a targeted class from the VAT system. However, exempting (rather than zero rating) farmers would not allow farmers to claim a credit for the VAT incurred on farm inputs. Several solutions have been offered with respect to this issue. Farmers could be zero-rated despite the increased administrative and compliance costs. Alternatively, farmers could be allowed to elect to be either zero-rated or exempt. Such an election may discriminate in favor of large farmers who could bear the related compliance costs. Farmers could be exempted from the VAT but allowed an income tax credit for the VAT on their purchases. Such a solution would only be feasible if all farmers filed income tax returns and may merely shift the underlying complexities to the income tax system. One solution that is widely used in Europe would be to exempt farmers and allow the purchasers of farm products to presume that a certain percentage, specified by the government, of the purchase price of farm products is related to the VAT. The purchasers would be allowed a VAT credit with respect to the presumed VAT, thus attempting to compensate for the lack of VAT credit at the farm level. Another option would be to exempt farmers and zero rate sales to farmers. Under such a proposal, farmers would not bear any compliance or purchase costs but would, however, be required to prove their status at the time of purchase of inputs for farm production.

F. Medical Care

Medical care is often excluded from the VAT to alleviate perceived regressivity. The analysis of whether or not to exclude medical care from the VAT is no different than the analysis required for any other good or service. If medical care is tax favored, the benefits of such a designation would likely inure to those who are more likely to use medical services and could act as an incentive for some to seek out unnecessary treatment. In addition, many types of expensive medical care can only be afforded by the relatively wealthy; exempting such medical care from the VAT would not offset regressivity. Further, it can be argued that the regressivity of imposing a VAT on medical care can be better alleviated by increasing other means-tested health programs rather than by providing VAT relief.

In addition, in other countries, medical care is often dispensed from the government. Thus, the decision to exempt medical care may stem from the decision not to tax government-provided services, rather than because of concerns of regressivity.

Certain issues arise if VAT relief is given to medical care. For instance, relief could be granted for all medical care, or just those procedures that are deemed necessary.[93] In addition, it may be appropriate to limit relief to publicly supported care, on the theory that those who can afford private care are not in need of VAT relief. Further, the treatment of health care insurance premiums must be coordinated with the treatment of medical care so as to not unduly encourage or discourage the use of such coverage.

The type of VAT relief would also be important. For example, hospitals normally purchase a large quantity of goods and services from third parties. Providing an exemption for hospitals would not relieve the tax burden on such purchases, while granting a zero rating or allowing hospitals to purchase items on a tax-free basis would provide additional relief. In addition, the treatment of hospitals should be coordinated with the treatment of governmental and tax-exempt entities.[94]

G. Housing

The treatment of housing under a VAT encompasses many issues, including regressivity, administrability, and the proper measurement and taxation of value added and consumption.

As with all attempts to address regressivity, VAT relief for housing would favor those who choose to spend a relatively large proportion of their income on housing and may provide an incentive to increase housing consumption relative to other goods. The preferential treatment of principal residences may also reduce economic efficiency. An additional tax incentive for residential housing could encourage the purchase of residential housing beyond economically efficient levels.

However, the taxation of housing is a troublesome area even for those who favor a tax on all consumption.[95] First, if housing were to be subject to the VAT, purchasers and tenants should be treated equally. The taxation of tenants is relatively easy—a VAT would be imposed on periodic rents. The VAT treatment of purchasers may be more difficult. The tax point for purchases of goods generally would be the date of acquisition. In the case of home sales, imposing a large VAT liability at the point of purchase, however, may be viewed as burdensome and may discriminate between existing home owners and new purchasers. One solution to the differing treatment of owners and renters would be to base the VAT on the imputed fair rental value of owner-occupied housing. Such imputations historically have been difficult to implement and administer.

Under any VAT, the preferential treatment of certain items increases the costs of administration and compliance. It is likely that preferential housing treatment would be limited to those structures used as the taxpayer's principal residence. Requiring this distinction adds complexity to the administration of the VAT. Unlike the preferential treatment of food, it would be necessary for sellers and lessors of housing to determine how the housing will be used (i.e., whether the buyer or lessee will use the property as a principal residence.)[96] In addition, difficult administrative issues may arise if a portion of the purchase price is attributable to nonhousing components (for example, appliances and other amenities), or if a portion of the rent is attributable to nonhousing services (for example, parking or other facilities). In such cases, the preferential treatment of principal residences may be available for consumer goods other than housing.

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[93] For example, for Federal income tax purposes, individual taxpayers now cannot deduct, as an itemized deduction, certain medical expenses related to cosmetic surgery (sec. 213(d)(9)). In addition, Canada imposes a VAT on cosmetic surgery, but not on other medical procedures.

[94] See the discussion of the treatment of governmental and tax-exempt entities below.

[95] See, the Treasury Report at p. 72.

Finally, payments for housing may include payments for the underlying land. Some commentators believe that land is not consumable and therefore should not be subject to the VAT.[97] Allowing land to be excluded from the tax base may create administrative problems in trying to allocate the portion of rental payments that relate to land and the portion that relates to real estate improvements.

H. Insurance and Other Financial Services

In general

One of the most difficult issues that must be addressed in developing a VAT is the treatment of insurance and other financial services. It is generally believed that based on considerations of economic efficiency and equity, all services (including financial services) should be included in the base of any VAT and should be taxed at the rate that generally applies to ordinary goods and services. A VAT that exempts or zero rates insurance and other financial services generally would create an artificial incentive for individuals to purchase these services rather than other taxable goods or services, and, consequently, would distort consumer preferences and the efficient allocation of resources.[98] In addition, because higher-income individuals generally purchase greater amounts of insurance and other financial services than lower-income individuals, the exemption or zero rating of these services may make a VAT more regressive. Notwithstanding these considerations, nearly all countries that currently impose a VAT provide an exemption for insurance and for the lending activities of financial institutions.[99]

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[96] Likewise, the subsequent conversion of a residence to business use by a individual presents an administrative issue. If personal residences are excluded from tax, the conversion to business use should be treated as a taxable sale. In addition, some structures can be used for both personal and commercial purposes, raising potentially difficult allocation issues.

[97] See, note 213 of the ABA Report at page 77. Similarly, because land is generally considered not to have a limited useful life, it is not depreciable or amortizable for Federal income tax or financial accounting purposes.

[98] As explained in section I. C. 4. above, an exemption or zero-rating of a good or service reduces the total amount of VAT that would otherwise be paid if the purchaser of the good or service is not engaged in the provision of goods or services that are subject to the VAT. If the purchaser is engaged in the provision of goods or services that are subject to the VAT, an exemption or zero-rating of the good or service that is purchased does not reduce (and, in fact, in the case of an exemption under a credit system, may increase) the total amount of VAT that would otherwise be paid.

[99] In accordance with the Sixth Council Directive of the European Communities, all countries that are members of the European Community provide a VAT exemption for the lending activities of banks and similar financial institutions and for insurance, reinsurance, and related services performed by insurance brokers and agents. See Sixth Council Directive of May 17, 1977, "On the Harmonization of the Laws of the Member States Relating to Turnover Taxes—Common System of Value Added Tax: Uniform Basis of Assessment," Official Journal No. L145, art. 13B(a) and (d), reprinted in 2 *CCH Common Mkt. Rep.*, par. 3165 (1977). Some countries that exclude insurance from the VAT impose a separate retail tax on insurance.

One argument for providing an exemption or zero rate under a consumption-based VAT for the activity of making consumer loans is that such loans are not an item of consumption.[100] It is believed by some, however, that loans to consumers are essentially a consumption expenditure, and, consequently, the interest charged pursuant to such loans should be subject to the VAT.[101]

Another argument for providing an exemption or zero rate for insurance and the lending activities of financial institutions is that it is difficult as a practical matter to determine what portion of the premiums received by insurers and what portion of the interest received by banks and other similar financial institutions should be subject to tax. The principal service provided by insurers to policyholders is the pooling of risks of loss. Insurers are compensated for such services by premiums from the insured and the investment earnings on such premiums. The principal service provided by banks and other similar entities to depositors is intermediation (*i.e.*, the pooling of money for the purpose of investing). Banks are compensated for such services by the "spread" on the interest rate charged on loans and the interest rate provided to depositors; banks also charge fees for certain financial services they provide. The imposition of a VAT on the gross amount of premiums or interest received would result in a tax that bears no relation to the value added by insurers and other financial institutions.

Determination of taxable amount in the case of insurance

In the simplest case, the value added by insurers may be measured by the excess of the premiums received over the claims paid. The premiums paid for most life insurance contracts, however, includes a savings element that does not represent value added by the insurer for insurance services. Under a consumption-type VAT, the savings element of insurance contracts should not be included in the VAT base.

This concern could be addressed by including in the insurer's VAT base only the excess of (1) the portion of the premium attributable to insurance coverage over (2) the actuarial cost to the insurer of providing the insurance coverage. It would be difficult as a practical matter, however, to determine the portion of the premium attributable to insurance coverage or the actuarial cost to the insurer of providing the insurance coverage. For example, in the case of single premium whole life insurance, it is unclear what portion of the premium is attributable to insurance coverage because the single premium funds the cost of insurance for the life of the insured. With respect to the actuarial cost of providing insurance coverage, it is uncertain whether the cost is to be based on industry-wide actuarial data or the insurer's own experience, and, if the latter, how to determine the insurer's own experience.

To avoid these difficult questions, it has been suggested that an alternative system apply to insurance.[102] Under this system, insurers would be subject to VAT on the gross amount of premiums received. Upon the occurrence of a claim, the insurer would gross-up the amount of the claim by the VAT rate in effect at that time. The insurer would be permitted to claim an input credit for the amount of the gross-up.[103]

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[100] See, Alan Schenk and Oliver Oldman, "Analysis of Tax Treatment of Financial Services Under a Consumption-Style VAT: A Report of the American Bar Association Section of Taxation Committee on Value Added Tax," *Tax Lawyer*, Vol. 44, No. 1, p. 181, 187 (1991).

[101] See, the Treasury Report at page 51.

[102] See Barham, Poddar, and Whalley, "The Tax Treatment of Insurance Under a Consumption Type, Destination Basis VAT," 40 *National Tax Journal* 171 (1987).

Under this system, an insurer would be taxed solely on the value of the risk-pooling service that it provides without resorting to estimates or industry averages to determine the portion of the premium attributable to insurance coverage or the actuarial cost of insurance. Nevertheless, such an approach may be criticized for not taxing the value of the financial intermediation services provided by insurers that issue life insurance with a savings element.

In order to address this criticism, it has been suggested by some that insurers should be subject to a subtraction-method VAT or an addition method VAT in lieu of the credit-invoice method VAT.[104] If a subtraction- or addition-method of computing VAT liability was adopted with respect to insurance while the rest of the economy was subject to a credit method, an adjustment would be necessary to insure that business purchasers of insurance obtain a credit for the VAT paid by insurers.

Determination of taxable amount in the case of lending activities of financial institutions

In the case of lending activities,[105] the value added by banks and other similar financial institutions may be measured by the excess of interest received from borrowers over the interest payable to depositors, reduced by the cost of purchased inputs. In order to tax this value added, it has been suggested that financial institutions be taxed on interest received from borrowers and that depositors be taxed on the interest paid by the financial institutions. In the case of nonbusiness depositors who cannot claim an input credit for such tax, however, this approach would result in the imposition of tax on the interest income on savings, which may be contrary to the purpose of a consumption-type VAT.

In order to avoid the imposition of VAT on interest paid to nonbusiness depositors, it has also been suggested that banks and other similar financial institutions be taxed under an addition- or subtraction-method VAT.[106] The principal criticism of an addition system is that it requires a determination of the profits of banks and other financial institutions, and, historically, it has been difficult under an income tax system to accurately determine such profits. It may also be difficult under an addition-method VAT to make accurate border adjustments that would be in compliance with GATT. A subtraction-method VAT for banks and other financial institutions would pose similar problems.

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[103] The treatment of the policyholder under this system would vary depending on whether or not the policyholder was a business. In the case of a business policyholder, an input credit would be available for the VAT imposed on the premium payments. At the time of a claim, the amount of the gross-up would be considered VAT payable by the business. In the case of a nonbusiness policyholder, no input credit would be available as premiums are paid and no VAT would be payable with respect to the amount of the gross-up.

[104] Under a subtraction-method VAT, the base to which the rate of tax applies would be determined for any taxable period by subtracting the total cost of inputs from total sales. Under an addition-method VAT, the base to which the rate of tax applies for any taxable period would be determined by adding together all the elements of value added including wages, rents, interest, and net profit. Under either a subtraction- or addition-method VAT, the entire value added by insurers, including the value of financial intermediation services, should theoretically be included in the VAT base.

[105] The discussion contained in this section addresses lending activities of banks and other similar financial institutions because such activities pose the most difficult VAT issues. In the case of other goods or services provided by financial institutions, such as the rental of safe deposit boxes or the issuance of checks, a separate charge is generally imposed with respect to these goods or services. A VAT should apply to these goods and services under the general rules applicable to goods or services. Difficulties would arise, however, if a separate charge is not imposed or the charge does not reflect the full value of the good or service.

Additional issues

If it is determined that the provision of insurance and the lending activities of financial institutions should be included in a VAT, at least two additional issues must be addressed. First, because a destination-based VAT only taxes services provided in the United States, rules are necessary to determine where insurance and lending activities are provided. Most countries that impose a VAT on insurance treat insurance services as occurring where the risk is located. Consequently, if a U.S. person insures a foreign risk, no U.S. VAT would be imposed on the transaction. Conversely, if a foreign person insures a U.S. risk, the transaction would be subject to a U.S. VAT. This approach may create collection problems in the case of foreign insurers that have no other connection with the United States (especially if the subtraction or addition methods were imposed on insurance providers). Second, it must be determined how the VAT is to apply to insurance and lending transactions where premiums or deposits are made before the effective date of the VAT and claims are paid or withdrawals occur after the effective date. A similar issue arises if the tax rate changes after the effective date.

I. Government Activities

The treatment of governmental entities involves issues of administration, competition, and intergovernmental relations. Specifically, questions arise as to whether the tax base can be accurately measured and how the tax would be collected, whether the government entity is in competition with a private enterprise, and whether it is appropriate for the Federal Government to include a State or local government in its tax system.

Federal, State and local governments generally provide services to the public at no charge or at a reduced charge. If governmental entities were required to collect VAT on such services, valuation and collection issues would arise. On the other hand, certain government services are provided at a cost commensurate with their fair market value (e.g., some city-owned parking garages). In such cases, the governmental entity may be viewed as if in competition with a private enterprise that offers the same service and it may be appropriate to subject such a sale to the VAT. Further, intergovernmental relationship issues arise if a State or local government is subject to a Federal VAT on its purchases of goods and services. Even if the relationship issues could be resolved, there may be administrative problems in having all governmental entities register for the VAT and file the appropriate returns.

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[106] It is reported that the Israeli VAT employs, at least in part, the addition method in applying its VAT to banks. See, Schenk and Oldman, *supra* note 34, at p. 191.

A VAT could attempt to resolve these issues by providing that a governmental entity would not be required to pay VAT on the goods and services it purchases or collect VAT for the performance of its services (with the exception of services for which a separate fee is charged). In this way, governmental entities would not be burdened by the VAT on their purchases and most governmental entities would not be required to collect VAT pursuant to the performance of their services. In essence, such entities would have benefits similar to exemption without the related cost of having to pay VAT on their purchases. Those governmental entities that charge a separate fee for their services would be required to collect VAT, as would private enterprises that perform similar services.[107] However, the governmental entities would not be required to pay VAT on their purchases. Issues arise as to whether it is appropriate to subject to VAT the performance of traditional government services where a nominal fee is charged (e.g., automobile licenses).

J. Exempt Organizations

The analysis of the issues relating to the taxation of tax-exempt entities is similar to that of governmental entities. Specifically, the issue arises as to whether it is appropriate to subject to the VAT either the purchases or activities of entities that have been granted income tax exemption [108] and, if warranted, how VAT relief should be structured.[109]

If services of charitable entities are not excluded from the VAT, it may not only be difficult to value the services provided by such entities, it may also be difficult for such some entities to charge their indigent beneficiaries for the tax. Thus, it may not be appropriate to subject most charitable entities to the VAT. However, activities through which such entities compete with taxable entities may appropriately be subject to the VAT (for example, tax-exempt hospitals compete with taxable hospitals). In addition, tax-exempt institutions often compete with government institutions (for example, private universities compete with State universities) and it would seem appropriate, in such cases, to treat such institutions the same.

K. Small Business

An exception from the VAT for small businesses could substantially reduce compliance and administrative costs. An exception for small business could also, however, distort economic behavior as well as reduce the tax base. The existence and extent of the distortion would depend in part on the identities of the parties to a transaction. In certain transactions, exempt small businesses would be favored over businesses subject to the VAT. For example, if an individual needs to have $1,000 of plumbing work performed on a personal residence, the individual would prefer that the plumbing be performed by an exempt plumber (who would charge $1,000) rather than by a taxable plumber (who would charge $1,000 plus a $50 VAT).[110]

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[107] However, split treatment may bias against efficient pricing of some governmental services. For example, to avoid the imposition of a VAT on its local residents, a government that normally provides a separate charge for its services (such as trash collection) may stop providing for separate charges and instead recover the cost of such programs through fees not subject to the VAT (for example, by increasing property tax bills).

[108] Entities that have been granted Federal income tax exemptions may or may not be exempt from the various Federal excise taxes.

[109] For example, all or some of the services of a tax-exempt entity could be zero rated, a tax-exempt entity could be exempt from the VAT, or a tax-exempt entity could be exempt from the VAT and its purchases could be zero rated. See, the Treasury Report at p. 70.

On the other hand, in other transactions businesses subject to the VAT would be favored over exempt small businesses. For example, assume that under the previous example a grocery store is in need of the plumbing and the work involves $800 of materials and $200 of labor. The exempt plumber would be required to pay $40 VAT on its purchase of materials, and, because it is exempt, would neither be permitted to claim a credit for the VAT it has paid nor issue a VAT invoice so that the grocery store could claim a credit for the VAT paid with respect to the materials. Thus, the exempt plumber would charge $1,040 for his work, and the grocery store would not be permitted to claim a credit for the $40 VAT. In addition, when the grocery store raises its prices to offset the $1,040 plumbing expense, it will charge VAT a second time on the $40 VAT the plumber previously paid.

The treatment of a plumber who is subject to the VAT would differ. A taxable plumber would also pay a $40 VAT with respect to the materials, but would charge $50 VAT on the entire transaction and claim a credit for the $40 VAT previously paid on the materials. The grocery store similarly would be allowed to claim a credit for the $50 VAT that it pays the plumber. The grocery store would pay the plumber $1,050 ($1,000 for the plumbing plus a $50 VAT), but, because the grocery store can claim the VAT it paid as a credit, the cost to the grocery store is in effect $1,000. The grocery store would charge its customers the theoretically correct VAT on the overhead attributable to these plumbing costs, and would not have to raise its prices by an additional increment to compensate for the "double VAT" that would be paid if the work were done by a VAT-exempt plumber. If the size of the small business exemption were increased, these distortive effects would be more pronounced.[111]

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[110] This example assumes a VAT rate of 5 percent and that both plumbers provide work of the same quality at the same price and that all of the economic burden of the VAT is borne by consumers.

[111] The distortions caused by VAT exemptions being granted at an intermediate step of production are demonstrated in greater detail in Example 6 in section I of this part.

IV. EXPERIENCE OF FOREIGN COUNTRIES WITH THE VALUE-ADDED TAX

A. Foreign Reliance on the VAT and Other Consumption Taxes

During the past 25 years, approximately 50 countries, including Canada, Japan, Mexico, the United Kingdom, and nearly all other major trading partners of the United States, have enacted some form of a value-added, consumption-based tax. For example, of the 24 countries that are members of the Organization for Economic Cooperation and Development (OECD), 20 have adopted a VAT as their principal consumption tax.[112] In addition, several Latin American countries, including Argentina, Brazil, Chile, Columbia, and Venezuela, have adopted a VAT, albeit often in a simplified form.

The relative reliance of foreign countries on consumption taxes,[113] such as the VAT, is much greater than the reliance of the United States on such taxes. As illustrated in Table 3, for 1988 (the most recent year for which comparative data are available), the member countries of the OECD derived an average of 29.2 percent of their total tax revenue from consumption taxes.[114] Further, an average of 17.2 percent of their total tax revenue for 1988 was derived from general consumption taxes, such as value-added taxes and general sales taxes, while the remaining 12 percent was derived from specific consumption taxes, such as excise taxes and customs and import duties.

In contrast, for 1988, the United States (including State and local governments) derived only 14.7 percent of its total tax revenue from consumption taxes. Of the total tax revenue of the United States for 1988, 7.5 percent was derived from general consumption taxes, such as the retail sales taxes imposed by State and local governments, while the remaining 7.2 percent was derived from specific consumption taxes, such as the excise taxes imposed on alcohol, tobacco, and motor fuels. Considering only taxes imposed by the Federal government, for 1988, the United States derived no tax revenue from general consumption taxes and only 5.2 percent of its total tax revenue from specific consumption taxes.

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[112] The members of the OECD are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

The four members of the OECD that have not adopted a VAT are (1) Australia, which imposes a wholesale sales tax; (2) Finland, which imposes a multi-stage sales tax that is partially cumulative and that exempts most services; (3) Switzerland, which imposes a single-stage sales tax that generally is collected on retail sales; and (4) the United States, which does not impose a general consumption tax at the Federal level, although nearly all States and a number of local jurisdictions impose general retail sales taxes. The U.S. Federal Government does impose a variety of excise taxes at the manufacturing or retail level.

[113] "Consumption taxes" include general sales or value-added taxes and specific consumption (excise) taxes imposed on selected products or services.

[114] The averages described in this section are simple averages that are not weighted for total tax revenue, gross domestic product or any other measure.

Japan was the only member of the OECD that derived a smaller percentage of its total tax revenue for 1988 from consumption taxes, and this result is likely to change for 1989 and thereafter based on the enactment of the Japanese VAT, which became effective on April 1, 1989.[115]

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[117] See below for a discussion of the Japanese VAT.

Table 3.—Percentage Distribution of Tax Revenue in Selected Countries by Source for 1988 [1]

Country	Income taxes [2]		Social security taxes [3]		Consumption taxes [4]		Other taxes [7]
	Individual	Corporate	Employer	Employee	General [5]	Other [6]	
Australia	45.9	10.6	—	—	9.1	14.9	19.5
Austria	22.5	3.2	16.1	13.7	20.6	10.2	13.7
Belgium	32.0	6.9	20.6	10.7	16.2	6.9	6.7
Canada	36.7	8.6	8.4	4.6	15.5	10.8	15.4
Denmark	51.0	4.4	0.2	2.0	19.4	12.3	10.7
Finland	46.2	4.2	8.2	—	23.9	13.4	4.1
France	12.1	5.2	27.2	12.5	19.7	8.9	14.4
West Germany	28.9	5.3	19.1	16.2	15.6	8.6	6.3
Greece	13.7	3.9	14.9	13.6	25.3	18.3	10.3
Ireland	34.8	3.8	8.4	5.1	20.7	19.7	7.5
Italy	26.8	9.4	23.4	6.6	15.2	10.5	8.1
Japan	22.9	24.4	14.4	11.1	—	10.8	16.4
Luxembourg	24.4	17.3	13.6	10.4	14.2	10.4	9.7
Netherlands	20.5	7.3	16.9	19.0	16.5	7.2	12.6
New Zealand	51.0	7.9	—	—	17.9	12.9	10.3
Norway	27.9	5.6	17.3	7.3	20.2	15.7	6.0
Portugal [8]	—	—	16.6	9.4	20.4	26.6	27.0
Spain	21.5	6.5	27.2	5.9	17.1	12.3	9.5
Sweden	38.8	5.2	24.3	—	13.3	10.0	8.4
Switzerland	34.2	6.6	10.1	10.3	9.8	7.7	21.3
Turkey	23.8	10.5	8.7	5.5	22.9	8.2	20.4
United Kingdom	26.6	10.8	9.5	8.5	16.5	13.1	15.0

Table 3.—Percentage Distribution of Tax revenue in Selected Countries by Source for 1988 [1]—Continued

Country	Income taxes [2]		Social security taxes [3]		Consumption taxes [4]		Other taxes [7]
	Individual	Corporate	Employer	Employee	General [5]	Other [6]	
United States (including State and local taxes)	34.7	8.4	17.0	11.4	7.5	7.2	13.8
United States (excluding State and local taxes)	41.2	9.7	24.6	16.6	—	5.2	2.7
Average [9]	30.8	8.0	15.3	9.7	17.2	12.0	12.5

[1] The classification of tax revenues by source is based on the criteria used by the OECD in its annual bulletin on comparative tax data of OECD member countries. For OECD purposes, taxes are defined to include all compulsory, unrequited payments to the general government. The general government consists of the central government as well as State, provincial, regional, and local governments (except as specified above for the United States).

[2] Income taxes include taxes levied on net income or profits and capital gains (OECD heading 1000).

[3] Social security taxes generally include all compulsory contributions paid to the general government which are earmarked to provide social security benefits and which are paid by insured persons or their employers (OECD heading 2000).

[4] Consumption taxes include all taxes levied on transactions in goods and services on the basis of their intrinsic characteristics, (e.g. value or weight) as opposed to taxes imposed on the permission to use goods or perform activities (OECD heading 5100).

[5] General consumption taxes generally include value-added taxes and general sales taxes (OECD heading 5110).

[6] Other consumption taxes include excise taxes and taxes imposed on imports and exports (OECD heading 5120).

[7] Other taxes generally include property taxes, estate, gift, and inheritance taxes, payroll taxes that are not earmarked for social security purposes, license fees, and other taxes imposed with respect to the permission to use goods or perform activities.

[8] For Portugal, income taxes equaled 22.2 percent of total tax revenue for 1988. There is no breakdown between individual and corporate income taxes, and, consequently, the income taxes collected by Portugal are listed under the "other taxes" heading.

[9] Unweighted average of percentages for those countries listed above that derived tax revenue from specified source.

Source: Organization for Economic Cooperation and Development, *Revenue Statistics of OECD Member Countries 1965–1989* (1990).

As illustrated in Table 4, the unweighted average of consumption tax revenue as a percent of total tax revenue for the 23 OECD countries listed has remained relatively unchanged since 1975. For the U.S. as a whole, the percentage of total tax revenue derived from consumption taxes has declined from 16.2 percent in 1975 to 14.7 percent in 1988. For the U.S. Federal Government, the percentage of total tax revenue derived from consumption taxes has declined from 6.9 percent in 1975 to 5.2 percent in 1988. This decline is partially attributable to inflation eroding the real, inflation-adjusted value, of specific excise taxes at the Federal, State, and local level. This decline may also be reversed for 1991 and thereafter based on the Federal excise tax rate increases (e.g., alcohol, tobacco, motor fuels and aviation excise taxes) that were enacted as part of the Omnibus Budget Reconciliation Act of 1990.

Table 4.—Consumption Tax Revenue[1] as Percent of Total Tax Revenue[2] in Selected Countries, 1965–1988

Country	1965	1970	1975	1980	1985	1988
Australia	30.0	27.8	25.8	27.8	28.5	24.0
Austria	36.6	36.6	33.9	30.6	31.5	30.8
Belgium	34.1	32.7	24.6	24.6	22.7	23.1
Canada	35.3	27.6	26.0	24.5	26.1	26.3
Denmark	38.3	36.6	31.6	35.6	32.9	31.7
Finland	42.5	40.0	33.5	38.5	35.7	37.3
France	37.5	37.1	32.4	29.5	28.7	28.6
West Germany	31.1	30.0	25.6	25.9	24.6	24.2
Greece	47.1	46.1	43.6	38.2	40.0	43.6
Ireland	49.1	49.5	44.4	43.0	42.6	40.4
Italy	37.0	36.3	28.3	25.2	23.6	25.7
Japan	25.0	20.9	15.1	14.1	12.1	10.8
Luxembourg	23.5	19.4	20.0	20.5	23.3	24.6
Netherlands	27.1	26.2	22.5	23.1	23.4	23.7
New Zealand	26.2	25.2	22.8	21.4	22.0	30.8
Norway	39.9	41.6	36.6	34.4	36.3	35.9
Portugal	41.5	42.2	38.1	43.4	41.3	47.0
Spain	40.6	35.8	24.0	20.7	27.7	29.4
Sweden	29.5	26.5	22.7	22.6	25.4	23.3
Switzerland	28.4	24.9	18.3	18.8	17.5	17.5
Turkey	53.5	48.8	40.9	25.2	35.7	31.1
United Kingdom	30.8	26.5	23.5	27.6	29.4	29.6

Table 4.—Consumption Tax Revenue[1] as Percent of Total Tax Revenue[2] in Selected Countries, 1965–1988 Continued

Country	1965	1970	1975	1980	1985	1988
United States (including State and local taxes)	19.2	16.9	16.2	14.4	15.4	14.7
United States (excluding State and local taxes)	*	*	6.9	5.7	5.5	5.2
Average[3]	34.9	32.8	28.3	27.4	28.1	28.4

[1] For this purpose, consumption taxes generally include value-added taxes, sales taxes, excise taxes, import and export taxes, and all other taxes levied on transactions in goods or services (OECD heading 5100).

[2] For this purpose, total tax revenue includes all compulsory, unrequited payments to the general government The general government consists of the central government as well as State, provincial, regional and local governments.

[3] Unweighted average of percentages for all countries listed above.

Source: Organization for Economic Cooperation and Development, *Revenue Statistics of OECD Member Countries 1965–1989* (1990).

B. Reasons Certain Foreign Countries Have Adopted a VAT

European Community

France is generally credited with introducing the first European VAT in 1954, although the VAT employed by France generally did not apply to retail sales or services until 1969. Denmark adopted the first general VAT in 1967, and in the succeeding 6 years, France, Germany, the Netherlands, Sweden, Norway, Luxembourg, Belgium, Ireland, Italy, the United Kingdom, and Austria adopted value-added taxes that applied to most goods and services at each stage of the production and distribution process. Turkey implemented a VAT in 1985, followed by Portugal and Spain in 1986, and Greece in 1987.

There were two principal reasons why so many European countries adopted value-added taxes during the late 1960s and early 1970s. First, the adoption of a VAT was required as a condition of joining the European Community (EC).[116] Second, prior to the adoption of the VAT, most of the European countries had been imposing gross receipts or turnover taxes that applied to each taxpayer in a multi-stage production or distribution process with no credit or other allowance for tax paid by another taxpayer earlier in the process. Virtually all economists agreed that these "cascade taxes" were distortionary and highly inefficient and should be replaced. Under these "cascade taxes," a low-profit product that passed through many hands prior to final consumption was often taxed more than a high-profit product that passed through few hands. In addition, the "cascade taxes" created an incentive for businesses to merge with other businesses or vertically integrate their operations in order to avoid paying tax at each stage of the production and distribution process.

Japan

The Japanese VAT was enacted in December of 1988 as a means to address the budget deficits incurred by the Japanese government since 1975. At the time of enactment, the Japanese VAT was estimated to raise nearly $40 billion in revenue, which represented approximately 10 percent of the Japanese budget.[117] Although the Japanese VAT was accompanied by sizable reductions in the taxes imposed on individuals, the Japanese VAT has been strongly criticized for making the Japanese tax system more regressive.

Canada

The Canadian VAT, which is commonly referred to as the Goods and Services Tax (GST), was enacted in 1990 as part of a revenue neutral tax reform package that repealed a 13.5-percent sales tax that was imposed on Canadian manufacturers. The manufacturers' sales tax was widely criticized as discriminating against goods produced in Canada because (1) imports generally were subject to a lower tax burden, and (2) the tax could not be rebated on exports under the General Agreement on Tariffs and Trade (GATT).[118] In addition, the manufacturers' sales tax did not apply to services and, like the repealed European gross receipts and turnover taxes, there was a cascade effect where tax was imposed on each taxpayer in a multi-stage production or distribution process with no credit or other allowance for tax paid by another taxpayer earlier in the process. Notwithstanding these economic benefits, the Canadian VAT has also been criticized for making the Canadian tax system more regressive and for increasing the rate of inflation in Canada.

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[116] See First Council Directive of 11 April 1967 on the Harmonization of Legislation of Member States Concerning Turnover Taxes, Article 1.
The 12 current members of the EC are Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

[117] *The New York Times*, August 21, 1989, p. D1.

C. Description of the Value-Added Taxes of Certain Foreign Countries

European Community

Each of the countries that are members of the EC utilizes the credit-invoice method to determine the amount of VAT that is due. As explained more fully in section I.C.1. of this part, above, under a credit-invoice method VAT, the VAT liability for any period generally equals (1) the amount of taxable sales multiplied by the applicable VAT rate, reduced by (2) a credit for the amount of VAT paid with respect to taxable purchases as shown on required invoices. If the credit for the amount of VAT paid with respect to taxable purchases exceeds the amount of taxable sales multiplied by the applicable VAT rate, the excess is refundable to the taxpayer.

Each of the value-added taxes in effect in the EC member countries is based on the destination principle. Thus, imports are subject to the applicable VAT rate, while exports are zero-rated, which means that businesses are not subject to VAT on exports but are allowed a credit for the amount of VAT paid on taxable purchases that are attributable to the exports.

Most of the EC member countries provide exemptions from the VAT for certain goods and services, such as educational services, rental housing, insurance and other financial services. In addition, many of the EC member countries provide a VAT exemption or other special rules for small businesses in order to reduce the compliance burden. Each EC member country uses a different definition of small business. As of 1987, the exemption levels ranged from approximately $1,600 of annual taxable sales in Denmark to approximately $48,000 of annual taxable sales for those businesses engaged in the provision of goods in Ireland.[119]

As explained more fully in section I.C.4. of this part, above, a credit for VAT paid with respect to the purchase of taxable supplies generally is not allowed if the business is exempt from the VAT or the good or service to which the taxable supply relates is exempt from the VAT. For this reason, most EC member countries allow exempt small businesses to elect to be subject to the VAT in order to obtain a refund where the credit on purchased supplies exceeds the tax due on sales.

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[118] See section II.E.3. of this part above, for a discussion of the GATT rules pertaining to the tax treatment of imports and exports.

[119] Alan Tait, *Value Added Tax—International Practice and Problems* (1988) p. 130.

Most of the EC member countries also provide for different VAT rates (other than zero) which vary based on the type of good or service that is provided. (See Table 5 for a listing of VAT rates for EC member countries as well as certain other countries.) As of July 31, 1989, the standard VAT rates, which apply to most goods and services, of EC member countries ranged from 10 percent in Turkey to 25 percent in Ireland. All of the EC member countries other than Denmark impose a lower rate of tax on essentials, such as food, medical care, electricity, and public transportation.[120] In addition, one-half of the EC member countries impose a higher rate of tax on luxuries, such as automobiles, televisions, jewelry, perfume, and furs.

Table 5.—Value-Added Tax Rates in Selected Countries[1]

[In percent]

Country	Standard rate	Reduced[2] rates	Increased rates
Austria	20	10	32
Belgium	19	6; 17	25; 33
Canada	7	—	—
Denmark	22	—	—
France	18.6	5.5	28
Germany	14	7	—
Greece	16	6	36
Ireland	25	5; 10	—
Italy	19	4; 9	38
Japan	3	—	—
Luxembourg	12	3; 6	—
Mexico	15	6	20
Netherlands	18.5	6	—
New Zealand	12.5	—	—
Norway	20	—	—
Portugal	17	15	20; 25
Spain	12	6	33
Sweden	23.46	—	—
Turkey	10	—	—
United Kingdom	15	—	—
Average[3]	16	—	—

[1] The rates specified above are those in effect as of July 31, 1989, except that the rates specified for Canada are those in effect as of January 1, 1991, when the Canadian value-added tax went into effect.

[2] In addition to reduced rates, most countries exempt or zero-rate certain goods and services certain countries provide multiple reduced and increased rates.

[3] Unweighted average of standard rates.

Source: Coopers & Lybrand International Tax Network, *1990 International Tax Summaries* (1990).

The differential VAT rates imposed by the EC member countries are at least partially attributable to the circumstances of each country at the time that the VAT was enacted. In enacting the VAT, the original members of the EC generally adopted a rate structure that was designed to produce substantially the same economic impact as the gross receipts or turnover tax that was in effect prior to the VAT. It was believed that taxpayers would focus on the economic benefits of replacing the gross receipts or turnover taxes with a VAT if the distribution of the consumption tax burden remained unchanged.

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[120] The United Kingdom has only one positive rate but zero-rates a number of essentials.

More recently, however, the use of multiple VAT rates has been widely criticized as causing major compliance and administrative problems.[121] In addition, the use of multiple VAT rates has been criticized as creating economic distortions by providing an incentive to purchase goods and services that are subject to the lower VAT rate and by providing a disincentive to purchase goods and services that are subject to the higher VAT rate.

In 1987, representatives of the EC recognized the advantages of a VAT that applies as few rates as possible to as broad a base as possible. In attempting to harmonize the value-added taxes of EC member countries by 1992, the Commission of the European Communities recommended a two-tier VAT system with (1) a standard rate of not less than 14 percent and not greater than 20 percent for most goods and services and (2) a reduced rate of not less than 4 percent and not greater than 9 percent for certain defined goods and services, such as energy, food, pharmaceutical products, and passenger transportation services.[122] The Commission did not recommend a three-rate structure (with an increased rate for certain luxuries) on the grounds that (1) the two-rate system would be simpler and more efficient and (2) the types of goods and services that are subject to increased rates differ significantly among the EC member countries.[123]

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[121] A 1980 GAO study concluded:

> "Government tax administrators and business representatives agreed that multiple rates for domestically distributed goods and partial exemptions are the main factors contributing to administrative difficulties. Those countries which used these to a great extent experienced significant difficulties with their VAT systems. For example, both government and business representatives in Italy stated that the use of seven rates has greatly complicated government administration and business compliance. In contrast, VAT administrators in Denmark indicated that their adoption of a single-rate system has greatly simplified administration and compliance."

U.S. General Accounting Office, *The Value Added Tax in the European Economic Community* (December 5, 1980) p. 9.

[122] Commission of the European Communities, *Taxation in the Single Market* (June 1990) p. 14.

[123] The member countries of the EC generally opposed the two-rate structure that was recommended by the Commission in 1987. Due to their high standard rates, Denmark and Ireland would likely suffer a significant revenue shortfall if the standard rate were limited to 20 percent. In addition, some EC member countries believed that each country should be allowed to establish its own VAT rates without restriction, while others believed that the proposed five or six percentage point rate differentials were too large. As an alternative, in June of 1989, the Commission recommended that a minimum standard rate be established with member countries free to adopt a higher standard rate. Commission of the European Communities, *Taxation in the Single Market* (June 1990) p. 16.

The EC member countries are currently attempting to establish a minimum standard rate. Luxembourg and Spain favor a 14-percent minimum standard rate, the United Kingdom opposes any EC interference in the VAT policies of member countries, and the remaining nine member countries favor a 16-percent minimum standard rate. "*Financial Times*, May 13, 1991, p. 3.

Japan

The Japanese VAT has been described as an "accounts-based, credit-subtractive VAT" [124] which is imposed at a uniform rate of 3 percent on most goods and services that are provided by businesses in Japan.

Under the Japanese VAT, the VAT liability for a taxable business generally equals (1) the amount determined by multiplying taxable sales by the 3-percent VAT rate, reduced by (2) a credit for the amount of VAT paid (or deemed paid) [125] to suppliers on purchases and the amount of VAT paid on imports. Unlike the typical European value-added taxes, there is no requirement that taxable businesses maintain invoices to establish the amount of VAT received on sales and the amount of VAT paid to suppliers on purchases. Instead, the amount of VAT received on sales and the amount of VAT paid to suppliers on purchases is determined from the accounting records of each business.

Like the European value-added taxes, the Japanese VAT taxes international transactions on a destination basis. Consequently, the 3-percent VAT applies to all imports, while exports are zero-rated.

Certain transactions are exempt under the Japanese VAT, which means that no VAT is due on the provision of the good or service and no credit is allowed for the amount of VAT paid on taxable purchases that are attributable to the good or service. Among the most significant transactions that are exempt under the Japanese VAT are: (1) sales and leases of land; (2) sales of most stocks, bonds, and partnership interests; (3) lending and insurance transactions; (4) government-sponsored lotteries; (5) certain government services such as the sale of postage stamps and the granting of passports; (6) medical services provided under certain health insurance laws; (7) tuition for most schools; and (8) certain social welfare services.

A complete exemption from the VAT is also provided for businesses with annual taxable sales of less than 30 million yen (approximately $220,000, based on recent exchange rates),[126] while a partial exemption from the VAT is provided for businesses with annual taxable sales of less than 60 million yen (approximately $430,000, based on recent exchange rates). A business that qualifies for the exemption may elect, however, to be subject to the VAT in which case a credit would be allowed for the amount of VAT paid on taxable purchases.

In addition, under the Japanese VAT, a business with annual taxable sales of less than 500 million yen (approximately $3.6 million based on recent exchange rates) [127] may elect to determine the credit for VAT paid (or deemed paid) on taxable purchases under a simplified method. Under the simplified method, the credit for wholesalers generally would equal 90 percent of total sales and the credit for all other taxable businesses generally would equal 80 percent of total sales.

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[124] Alan Schenk, "Policy Issues in the Design of a Value-Added Tax: Some Recent Developments in OECD Countries," *Tax Notes International*, July 1, 1989, p. 32.

[125] Under the Japanese VAT, a taxable business generally is allowed a credit for purchases made from an exempt small business even though no VAT was paid with respect to such purchases. A VAT credit generally is not allowed for purchases of exempt goods or services.

[126] Approximately two-thirds of all businesses in Japan have annual sales of less than 30 million yen. *The Nihon Keizai Shimbun Japan Economic Journal*, January 28, 1989, p. 4.

[127] Approximately 96 percent of all businesses in Japan have annual sales of less than 500 million yen. *Id.*

Finally, under the Japanese VAT, taxable businesses are allowed a credit for supplies purchased from exempt businesses, even though no VAT was paid with respect to such purchases. By providing a credit for supplies purchased from exempt businesses, the Japanese VAT favors exports and discriminates against imports. It is unclear whether this feature of the Japanese VAT violates the General Agreement on Tariffs and Trade ("GATT").

Canada

Like the typical European value-added taxes, the Canadian VAT is a credit-invoice method VAT. Unlike the typical European value-added taxes, the Canadian VAT applies to a somewhat broader range of goods and services at a uniform rate of 7 percent.

As a credit-invoice method VAT, the VAT liability for any period generally equals (1) the amount of taxable sales multiplied by the applicable VAT rate, reduced by (2) a credit for the amount of VAT paid with respect to taxable purchases. In addition, invoices are required to be maintained by businesses to establish that the proper amount of VAT has been paid with respect to sales and that the proper amount of VAT has been claimed as a credit with respect to taxable purchases.

The Canadian VAT generally is imposed at a rate of 7 percent on the value of the consideration paid for goods and services provided in Canada in the course of a commercial activity. Under the destination principle that has been adopted by virtually every country that employs a VAT, imports are subject to the VAT, while exports are zero-rated.

The Canadian VAT provides a zero-rate for basic groceries (generally food sold for preparation and consumption at home), prescription drugs, and medical devices. In addition, the Canadian VAT exempts financial services, health and dental services, child care services, residential rents, legal aid services, and most educational services.

The Canadian VAT also provides special rules that are designed to reduce the compliance burden for small businesses. Businesses with annual sales of less than $30,000 (Canadian) generally are exempt from the VAT. In addition, businesses with annual sales of less than $500,000 (Canadian) are allowed to make payments of the tax annually in lieu of the quarterly or monthly payments that are required of larger businesses.

In order to address regressivity concerns, an annual refundable VAT credit of $190 (Canadian) per adult and $100 (Canadian) per child generally is provided to families with net income of less than $24,800 (Canadian). This credit, which is designed to exceed the additional costs that such individuals may incur by reason of the VAT, is provided through the Canadian income tax system. Consequently, individuals who are not otherwise required to file an income tax return must file a return in order to claim the VAT credit. In addition, as a regressivity offset, a portion of the VAT is rebated for new home sales with a sales price of less than $450,000 (Canadian).

V. VALUE-ADDED TAX ADMINISTRATION ISSUES

A. Who Should Administer a VAT

In most major industrialized nations that have enacted a VAT, the VAT is administered by the same governmental agency that administers the income tax. In those countries, however, the degree of integration of the administration of the VAT with the administration of the income tax varies. For example, in some countries, such as Germany, France, and Sweden, one office is responsible for auditing both income tax returns and VAT returns. Other countries, such as the Netherlands, Denmark, and New Zealand, have separated the auditing responsibilities.

A few countries have separated the administration of the VAT from the administration of the income tax. For example, in the United Kingdom, responsibility for administering the VAT is lodged in Customs and Excise, while Inland Revenue is responsible for the income tax. This arrangement appears to have occurred for historical reasons: to equalize workload burdens as compared with Inland Revenue, Customs and Excise was made responsible for the wholesale taxes that were the predecessors of the VAT, and utilizing the administrative expertise they so acquired was considered to be important.

Another factor influencing the choice of agency to administer the VAT is the degree to which VAT revenues are projected to be derived from imports. The greater the percentage of VAT receipts projected to be derived from imports, the more consideration that should be given to the role of the Customs Service in administering this tax.

It appears that the role of the U.S. Customs Service in administering a VAT on imports into the United States may be able to be less significant than the role played by the customs agencies of our major trading partners. In recent years, imports have represented approximately 11 percent of gross domestic product in the United States. In the United Kingdom, imports represent approximately 28 percent of gross domestic product; in France, imports represent approximately 23 percent of gross domestic product. The average for all European OECD countries is that imports represent approximately 28 percent of gross domestic product. This average is approximately two and one half times as great as the comparable figure for imports into the United States. Thus, imports play a less significant role as a percentage of U.S. gross domestic product than they do for many of the major trading partners of the United States.

Another factor influencing the choice of agency to administer the VAT domestically is the type of VAT chosen. If a subtraction-method VAT is to be implemented, it would relate closely to the income tax; consequently, no agency other than the Internal Revenue Service should be considered in the selection of the agency principally responsible for domestic administration of a VAT. If, on the other hand, a credit-invoice method VAT is chosen, it would be possible to consider other agencies, such as the Customs Service. A credit-invoice method VAT would, however, be similar to the Federal excise taxes currently administered by the Internal Revenue Service. Consequently, it would appear that the Internal Revenue Service should still be the leading candidate for domestic administration of a credit-invoice method VAT. Similarly, it would appear that the Customs Service should be the leading candidate for administration of a VAT with respect to imports, regardless of whether a credit-invoice or a subtraction-method VAT is chosen.

B. Personnel Required to Administer a VAT

The 1984 Treasury Report estimated that it would require approximately 20,000 additional IRS employees to administer a credit-invoice method VAT in the United States. (Although the Treasury Report recommended that the Customs Service administer a VAT with respect to imports, the Report contained no estimate of the required number of employees or costs attributable to administration of a VAT by the Customs Service with respect to imports.) The economy has, of course, grown substantially since then, and the size of the IRS has also grown. In 1984, the IRS had 87,635 full-time equivalent employees. For 1991, that figure is expected to be 115,622. One rough way to estimate the number of IRS employees that would be required in 1991 to administer a VAT would be to assume that the 1984 estimate was correct, that the growth in the number of overall IRS employees from 1984 through 1991 was attributable to increases in the size and complexity of the economy, and that a parallel expansion in the number of VAT employees would also have been required had a VAT been enacted in 1984. Thus, if the 20,000 employees figure from 1984 were expanded by the same percentage that the total number of IRS employees grew from 1984 through 1991, the number of IRS employees required to administer a credit-invoice VAT in 1991 would be 26,400. Although this is at best a method that might only roughly approximate the number of IRS employees required to administer a credit-invoice VAT in the United States, there can be little doubt that significantly more employees would be necessary in 1991 to administer a credit-invoice VAT than would have been necessary in 1984 had a VAT been enacted then. The 1984 Treasury Report also estimated that it would cost the Internal Revenue Service $700 million per year to administer a credit-invoice VAT, once it was fully effective (this estimate did not consider the costs of the Customs Service in administering a VAT). Adjusting that estimate for inflation, it would cost approximately $980 million in 1992 dollars for the IRS to administer a credit-invoice VAT in the United States.

The foregoing discussion assumes that the 1984 estimate that 20,000 employees would be needed to administer a credit-invoice VAT is roughly correct. It is, however, possible that, considering the experience of other countries that have a credit-invoice VAT, the 1984 estimate may have significantly understated the number of employees required to administer a credit-invoice VAT in the United States.

One way to assess whether the 1984 estimate of 20,000 employees was realistic is to compare the ratio of Government employees who work on the VAT to the number of VAT taxpayers (i.e., the number that will file VAT returns rather than the number that will pay the VAT). The 1984 Treasury Report estimated that there would be approximately 20 million VAT taxpayers in the United States. Consequently, the Treasury Report estimated that there would be one IRS employee for each 1,000 VAT taxpayers.

That ratio is significantly lower than the ratio for other major industrialized nations, as shown in the following table:

Table 6.—Ratio of VAT Administration Staff to VAT Taxpayers in Selected Countries

Country	Year	Ratio of VAT staff to VAT taxpayers
France	1982	1:173
Ireland	1984	1:130
Italy	1978	1:726
Netherlands	1979	1:280
Portugal	1986	1:215
Sweden	1982	1:250
United Kingdom	1983	1:149

Source: Tait, *Value-Added Tax—International Practice and Problems* (1988), p. 250.

The design features of a VAT have the largest influence on the number of staff required to administer a VAT. The most significant of these design features that could influence the number of VAT employees is the choice of a credit-invoice method VAT or a subtraction-method VAT. It is possible that a subtraction-method VAT with no significant exceptions could require fewer employees than a credit-invoice method VAT. It is also possible that either type of VAT would require approximately the same number of employees, though they might be deployed differently. For example, more audit employees might be required under a subtraction-method VAT (because of the lack of invoices) than a credit-invoice method VAT. Because no major industrialized nation has recently employed a subtraction-method VAT, there is no comparable experience on which to base an estimate of required staff levels. Consequently, most of this discussion focuses on a credit-invoice method VAT.

Other design features of a VAT would also have a significant influence on the number of staff required to administer a VAT. The choice of a single rate versus multiple rates would have a major influence, as would the resolution of issues such as the treatment of small businesses and the taxation of housing, financial services, and insurance. A single-rate VAT applicable to a very broad range of goods and services would be easier for both the Government and the private sector to administer than a multi-rate VAT with numerous exceptions and special rules.

There are several other factors that influence these ratios of VAT employees to VAT taxpayers. One is the general size of the VAT taxpayers. The larger the size of the VAT taxpayer, the more likely that the taxpayer will employ specialized experts to assist in the preparation and filing of the VAT return. These specialized outside experts can help assure compliance with the law, at least insofar as the law is clear. With respect to the U.S. income tax, IRS data generally indicates that large firms make fewer errors in basic computations than small firms. This is also likely to be true with respect to a VAT. Thus, if two countries have equivalent gross national products but in one country large firms represent a larger percentage of the VAT taxpayer universe than in the other country, the country with the larger percentage of large firms may be able to utilize a lower ratio of VAT employees to VAT taxpayers.

It appears that, in general, the United States has a larger percentage of large firms than several of our major trading partners. For example, in France, six percent of firms in all sectors of the economy have 10 or more employees, and one-fifth of firms in the manufacturing sector have 10 or more employees. In Italy, both with respect to the manufacturing sector and with respect to all sectors, six percent of the firms have 20 or more employees. In the United States, by contrast, over a third of the firms in the manufacturing sector have 20 or more employees. This may imply that the United States would be able to utilize a lower ratio of VAT employees to VAT taxpayers than these other countries.

Another factor influencing the number of staff required to administer a VAT is the percentage of VAT revenues projected to be derived from imported goods. In general, it is easier to administer a VAT on imported goods than on domestically produced goods, in that imported goods must pass through customs in order to enter a country. Consequently, the higher the percentage of revenue that is projected to be derived from imported goods (instead of from domestic goods), the lower the ratio of VAT employees to VAT taxpayers may be. On the other hand, it is much more difficult to administer a VAT on imported services than on domestic services. Thus, the character of the imports (i.e., whether they are goods or services) may have a significant influence on staffing levels. It is, consequently, unclear what overall impact imports may have on the number of staff required to administer a VAT.

An additional factor influencing the number of staff needed to administer a VAT relates to the general familiarity with the principles underlying a VAT. If, as in a number of European countries, the VAT replaced an extensive system of wholesale and manufacturing sales taxes, there would be a general understanding of the principles underlying a VAT and the transition to a VAT would be easier. Thus, fewer employees would be necessary to explain the VAT and to conduct audits to assure compliance. On the other hand, if there was no general predecessor wholesale or manufacturing sales taxes, there will be little familiarity with the principles underlying a VAT, which implies the need for more staff, especially during the initial stages of the VAT.

Considering both the Federal and State tax systems, many VAT taxpayers in the United States would be largely unfamiliar with the principles underlying a VAT. Although most States impose retail sales taxes, there are three limitations on the utility of that experience in dealing with a VAT. First, State sales taxes are generally imposed at the retail level. Thus, manufacturers and wholesalers have limited exposure to these taxes (although some have some exposure through the Federal excise taxes affecting certain industries). Second, many State sales taxes apply to goods, but not to services. To the extent these taxes apply to services, the number of services to which they apply are generally quite limited and are specifically enumerated. Two states (Florida and Massachusetts) have recently moved toward extending their sales taxes to a broad range of services, but have ultimately backed away from broad taxation of services. By contrast, a VAT generally applies to most services, except for a relatively small number with respect to which the computation of the VAT is particularly difficult (such as financial services, insurance, and housing). Because the issues arising from the application of a VAT to services are generally more complicated than those arising with respect to goods, the utility of the State experience may be limited. Third, because retail sales taxes generally apply only to the ultimate consumer, the issue of input credits has not generally been encountered in administering State sales taxes. This also may limit the utility of the State experience.

Two additional factors that would influence the number of employees needed to administer a VAT are the relative efficiency of the employees and the relative honesty of VAT taxpayers. It is difficult to assess the impact of these factors on the appropriate size of the staff necessary to implement a U.S. VAT.

In summary, some of the factors discussed above argue for a higher ratio of staff to VAT taxpayers in the United States than in other industrialized nations, while other factors argue for a lower ratio. None of the factors is likely to account for a four-fold or five-fold difference in the ratio of staff to VAT taxpayers that is implicit in the 1984 Treasury Report and the ratio actually utilized by many industrialized nations.

If, for example, a ratio of one employee for every 250 VAT taxpayers is considered appropriate (this level is at the upper end of the range employed by most other industrialized nations), then a four-fold increase of staff beyond the 1984 projection would be required. This would mean that 80,000 employees would be required to administer a U.S. VAT (or slightly more than 100,000, if the number is adjusted to reflect increases in the size of the IRS from 1984 through 1991).

Similarly, if a ratio of one employee for every 200 VAT taxpayers is considered appropriate (which is closer to the middle range of what other industrialized countries have experienced), then a five-fold increase of staff beyond the 1984 projection would be required. This would mean that 100,000 employees would be required to administer a U.S. VAT (or slightly more than 130,000, if the number is adjusted to reflect increases in the size of the IRS from 1984 through 1991).

This analysis may mean that providing a realistic number of employees to administer a U.S. VAT could mean a near-doubling of the size of the IRS. If this is the case, it could also mean a near-doubling of the size of the IRS budget. The total IRS budget for fiscal year 1991 is $6.1 billion.

This in turn may mean that, if the United States were to choose to adopt a VAT, consideration would have to be given as to whether a relatively low-level VAT is worth imposing, given these sizeable potential administrative costs.

The foregoing discussion is not intended to provide a definitive analysis of the costs of implementing a VAT in the United States, but rather is intended to indicate that there exists a wide range of estimates of possible administrative costs.

If the United States were to enact a VAT and use it to replace one or several existing taxes, it is possible that there would be a net administrative saving to both the Government and the private sector. If, however, the enactment of a VAT were coupled with rate reductions in (rather than the elimination of) existing taxes, administrative savings are more likely to be either minor or nonexistent. This is also likely to be true if the revenues from a VAT are devoted to deficit reduction or new spending programs.

C. Time Period Necessary to Implement a VAT

The 1984 Treasury Report stated that the IRS would need a minimum of 18 months after enactment before it could begin to administer a credit-invoice VAT. It is possible that slightly less time could be required to implement a subtraction-method VAT.

Several factors would influence the selection of the appropriate time period for implementation of a VAT. First, should the IRS be designated as the agency to implement a VAT, the effect that redeploying current employees to new jobs will have upon existing programs and functions must be considered. Training examination employees in the techniques of examining a VAT return necessitates taking them away from other assignments, which could have negative revenue consequences. In addition, experience since 1984 has shown that it takes more time than was earlier thought to be the case to train a new IRS employee to the point at which he or she can function effectively.

The ability of the IRS (or whatever other agency is chosen to administer a VAT) to absorb, train, and supervise effectively large numbers of new employees must be considered. In recent years, for example, the number of new employees provided to the IRS to fulfill revenue-raising functions (such as auditing and collection) has been limited by the inability of the IRS to absorb effectively larger increases. This same difficulty would arise if a totally new agency were established to administer a VAT. For example, the Resolution Trust Corporation, which was established in 1989 to supervise the liquidation of former thrift assets now owned by the Government (among other responsibilities), hired slightly more than 6,000 new employees (including transfers from predecessor agencies) from August 1989 through April 1991. Some observers believe that this agency has experienced some difficulties in managing so many new employees in such a short period of time, despite the fact that a number of these employees had relevant experience in either the Government or the private sector. Similar difficulties could arise with respect to the VAT; indeed, they might be worse, in that the initial number of employees hired would likely be higher and the amount of relevant experience of those employees would be less.

Although current Federal tax administration experience would provide only a limited base of knowledge upon which to build the administration of a VAT, the very substantial experience of other industrialized countries could provide significant assistance. The experience of two of our major trading partners, Japan and Canada, both of which have recently instituted a VAT, could be especially useful in providing guidance as to how best to implement a VAT.

D. Administrative Costs to Private Sector

The private sector would incur substantial additional costs in complying with a VAT. Perhaps the most significant of these would be personnel costs. Existing personnel would need to be trained in the operation of the VAT; many companies would need to hire additional personnel. In addition, most companies would incur equipment costs. Significant personnel and equipment costs would be incurred whether a credit-invoice or a subtraction-method VAT were chosen.

If a credit-invoice VAT were chosen, the private sector would have to acquire new equipment (or modify existing equipment) that would produce invoices that would show the amount of VAT paid on the invoice (this is an essential feature of the credit-invoice system VAT that is employed by most industrialized nations that have enacted a VAT). In order to assist companies with the acquisition of this equipment, Canada provided a start-up credit of $300 (Canadian) to $1,000 (Canadian) for companies with quarterly revenues below $500,000 (Canadian). Canada also exempted electronic cash registers and related inventory control equipment from the Canadian Federal sales tax and permitted the immediate deduction (instead of capitalization) of the costs of this equipment for income tax purposes for the first two years the VAT was effective. Shifting a portion of the private sector costs to the Government in a manner similar to this could be a useful way to ameliorate the burdens on the private sector.

E. Interaction with State Sales Taxes

It would be possible to enact a Federal VAT in the United States and simultaneously maintain the existing system of State sales taxes. Because these dual systems might, however, cause some confusion (particularly with respect to retail transactions), some observers have suggested that State sales taxes be repealed and that a portion of the Federal revenue received from the VAT be returned to the States as compensation for the repeal of State sales taxes.

While this proposal would be relatively easy to administer, it might be perceived as an undesirable ceding of State control over a significant source of revenue to the Federal Government. It is also possible that the recent history of revenue sharing, in which a portion of Federal revenues was provided to the States, but which was later repealed, could cause the States to be reluctant to participate in such a system. In addition, a dual system of a Federal VAT combined with State sales taxes could be perceived as eroding the base for the State sales tax and therefore could bring political pressure on the States to reduce their sales taxes, which could cause them to oppose a Federal VAT.

Although other countries have encountered the issue of harmonizing a new Federal tax with existing State or Provincial taxes, the unique nature of the Federal-State relationship in the United States may make this issue more difficult to resolve than in other countries. Perhaps a more analogous situation is the ongoing VAT harmonization efforts that the European Community is undertaking as part of EC 1992. It now appears that the process will be more complex and will take more time to complete than was initially anticipated.

ADDENDUM

International Economic Competitiveness, Trade Performance and U.S. Living Standards

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INTERNATIONAL ECONOMIC COMPETITIVENESS, TRADE PERFORMANCE AND U.S. LIVING STANDARDS

SUMMARY*

Even a casual review of the voluminous literature on international economic competitiveness suggests that people have many different concepts in mind when they use the term. Commentaries on competitiveness frequently focus on trade performance, especially the recurrent U.S. trade deficits; U.S. living standards, especially as compared with those in other industrial countries; and the performance of individual U.S. firms or industries, especially high–technology producers. Analysts of the competitiveness "problem" draw different conclusions about trends in U.S. competitiveness and about the kinds of trade, tax, education, macroeconomic, and other policies that are needed to deal with those trends. A dominant, though by no means unanimous, view, in the literature is that U.S. international competitiveness is somehow declining.

The contributors to this report make few generalizations about *national* competitiveness. They suggest, instead, that the concept of competitiveness is best applied to a single producer or a group of producers within the economy.

- From the perspective of a single company the concept of competitiveness is straightforward: it is the ability under fair trading conditions to compete successfully for orders; in general, to produce at low enough costs relative to competitors, domestic and foreign, to generate profits adequate to justify its investments. Against domestic competitors this depends on low unit costs of producing, selling and delivering products. (Cox, p. 7)

A partial indicator of competitiveness — unit labor costs in manufacturing — is compiled by the Department of Labor. When converted to a common currency, U.S. unit labor costs have had a mixed record since 1980. Between 1980 and 1985, when the dollar rose rapidly relative to other currencies, U.S. labor costs rose relative to other major trading partners. With the depreciation of the dollar in the second half of the 1980s, however, the outlook for U.S. manufacturing competitiveness looks more promising. (Cox, p. 11; Bolle, p. 20–22)

Because the ability of U.S. manufacturers to compete against foreign producers is heavily influenced by macroeconomic conditions, the concept of national competitiveness is a complex one.

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- Against foreign competitors, however, the ability to compete successfully is affected very heavily by macroeconomic influences on price levels and exchange rates in various countries that are beyond the control of producers...Hence, the concept of "competitiveness" among nations is anything but straightforward. (Cox, p. 7)

U.S. trade deficits, cited by many as evidence of a loss of competitiveness, are products of such macroeconomic influences.

- ...U.S. trade deficits in the 1980s were the consequences of macroeconomic forces given movement by the spending and savings decisions of American households and government. In the 1980s the United States consistently spent more than it produced, the difference coming, as it must, from abroad as imports in excess of exports. (Elwell, p. 15)

Thus, if the trade deficit is a major concern of policymakers, their focus should be on the macroeconomic conditions that drive the deficit.

U.S. LIVING STANDARDS

Several contributors suggest, however, that the ultimate concern of economic policy is not removing the U.S. trade deficit, but improving U.S. living standards. Indeed, from an economic viewpoint, trade deficits may improve living standards by allowing consumption in excess of domestic production (as in the 1980s) or by allowing investment in excess of domestic savings.

- ...the net inflow and output of foreign funds can be used to support domestic investment. Such capital accumulation will tend to accelerate the rate of growth of output and raise future living standards. Debt that is incurred can likely be paid back with some portion of this new output, leaving the remainder to augment domestic consumption. (Elwell, p. 16)

Whether a country borrows to increase domestic consumption or investment, however, it must eventually pay back the accumulated debt. In the long run, it is productivity growth that largely determines U.S. living standards, and U.S. productivity growth has slowed.

- Statisticians who had projected standard of living and productivity growth rates on the basis of experience from 1947 to 1973 fueled expectations that the standard of living in the United States would continue to double every generation (roughly every 25 years).

  However, at the rate that productivity and standard of living have been growing in the United States since 1973, it will take about twice as long for the standard of living to double again (until about 2020) and three times as long for productivity to double (until about 2060). (Bolle, p. 19)

While the causes of the slowdown in productivity growth are not precisely understood, many believe that increased investment in education and training, research and development, and infrastructure will provide a stimulus to future productivity growth. Such policies would presumably influence positively the competitiveness of U.S. producers in the future.

Trade policy, which is sometimes ineffectively aimed at correcting the trade deficit, can be used to improve U.S. living standards. Most economists, believe that free trade, based on comparative advantage, maximizes the welfare of all trading countries.

- Basic international trade theory holds that nations export those goods and services that they can produce more cheaply relative to the rest of the world and import the other goods and services they need. Uninhibited international trade promotes the general economic welfare of each nation and therefore the world as a whole because it permits countries to achieve the highest level of production and, therefore, income with a given endowment of land, labor, and capital.

  ...In general, [trade] negotiations will improve the efficiency of international trade, and therefore, living standards, if they encourage production by efficient producers rather than divert trade towards less efficient producers. (Cooper, p. 23,25)

There have been many challenges to the notion that free trade maximizes a country's welfare. Advocates of a "strategic trade policy" — government intervention in a market dominated by a few large firms — have been particularly articulate in debates over trade policy in recent years. Although some economists argue that a government could maximize a country's gains from trade, most are reluctant to recommend such a policy.

- The main rationale for strategic trade policy is that, when there are relatively few large firms in an industry, some firms earn excess returns. With government intervention, such as subsidies or trade protection, these excess returns might be shifted from foreign to domestic firms. Foreign firms or governments may retaliate, however, making the ultimate outcome uncertain. In practice, strategic trade policy has a number of limitations, such as the likelihood of retaliation and the practical difficulties (both economic and political) of deciding which industries should receive subsidies or trade protection. Most economists who developed the new trade theory are wary of recommending it in practice, and argue that free trade remains the best policy in an uncertain world. (Wilson, p. 27–30)

Thus, trade policy, by promoting open markets or by shifting excess returns in oligopolistic markets from foreign to domestic firms could, theoretically, raise a country's standard of living.

HELPING INDIVIDUAL FIRMS TO COMPETE

Governments frequently intervene in the economy through trade policy for a variety of reasons, including technology policy, or regulatory policy, to help individual firms or industries, compete. Such policies often help some producers at a cost to other parts of the economy. Subsidies for new technologies, for example, must be paid for by other producers, and protection of strategic industries may generate inefficiencies. Such costs are sometimes accepted because some producers generate benefits, such as technological spinoffs or national defense advantages, for which they are not compensated in the market place.

Many observers have advocated strategic trade policies and other measures to help high technology industries compete in global markets.

- Technology development is recognized as an important part of economic growth and international competitiveness. Improving upon an existing commercial technology or creating a new technology can result in greater market shares and revenues; advances in technology also can provide new methods and processes of production in a global economy...While some argue that we have entered an age of "borderless economies" and free technology flows, others place a great deal of emphasis on the role of national technology policies to protect and nurture advanced or vital technologies. (McLoughlin, p. 31)

Changes in regulatory policies may make it easier or more difficult for U.S. firms to compete abroad.

- Government regulation — whether at local, state, national, or supranational levels — influences market behavior and affects the ability of firms to compete within a market across international markets...Increasingly, trade negotiations are likely to focus on regulation as a source of trade friction, especially where regulatory regimes are perceived to be diverging. The United States and the European Community (EC) appear to be taking different paths when it comes to the question of regulation...The global orientation of the U.S. economy suggests that barriers arising from diverging regulatory systems poses certain dangers for the United States and the international trade system. (Harrison, p. 35)

A prominent example of U.S. regulatory policies that influence the ability of U.S. firms to compete is antitrust policy.

- Concern over U.S. international competitiveness has led to an examination of antitrust laws...In examining proposals to revise antitrust laws, U.S. policymakers will need to balance the goal of promoting U.S. industries' international competitiveness with the goal of maintaining competition in the domestic economy in a way which maximizes (to the extent possible) consumer welfare and economic efficiency. Likewise, policies to encourage greater cooperation among firms to enhance technical innovation should

> not come at the expense of discouraging innovations by smaller firms. Finding the best balance, however, will be very difficult due to the fact that market outcomes, especially in a rapidly changing international market, are extremely hard to predict. (Morrison, p. 44)

IMPROVING LIVING STANDARDS AND COMPETITIVENESS

Governments sometimes face dilemmas of how to help individual firms or industries compete, without imposing costs on other parts of the economy. Protectionist trade policies or industrial policies, for example, often involve such tradeoffs. While ideal solutions are elusive, several of the contributors to this study suggest that a clear focus on improving U.S. living standards can provide guidelines to solving such policy dilemmas. For example, common prescriptions for improving productivity performance — macroeconomic policies to promote steady growth with price stability; public investment in education, training and infrastructure; tax policies to promote savings and investment; and trade policies to maintain open international markets — are consistent with a strategy of improving the competitiveness of U.S. producers.

THE CONCEPT AND MEASUREMENT OF COMPETITIVENESS*

From the perspective of a single company the concept of competitiveness is straightforward: it is the ability under fair trading conditions to compete successfully for orders; in general, to produce at low enough costs relative to competitors, *domestic and foreign*, to generate profits adequate to justify its investment. Against domestic competitors this depends on low unit costs of producing, selling and delivering products.

Against foreign competitors, however, the ability to compete successfully is affected very heavily by macroeconomic influences on price levels and exchange rates in various countries that are beyond the control of producers. These influences include monetary and fiscal policies, saving and investment trends, and international capital flows, which are massive and respond to many stimuli. Hence the concept of competitiveness among nations is anything but straightforward.

Nobel economist, Lawrence Klein, has laid out a "four-factor analysis" of international competitiveness, defining these factors as (1) the average wage rate, (2) the amount of labor per unit of output, (3) profit margin, and (4) the exchange rate. Factor (2) is the reciprocal of labor productivity. Profit margin refers here to the mark-up over labor cost and, if a producer is to remain viable, it must cover costs of capital, energy and other materials as well as adequate returns to risk.

The product of the first two factors — the average wage *times* labor input per unit of output — yields average labor cost per unit of output. According to Klein, "To be competitive, a country should try to hold down its unit labor cost and may do so on two fronts, either through wage restraint or through productivity enhancement, or through a combination of both." He continues, "The more profit restraint we find, the lower prices will be; conversely, high profit margins can contribute to lack of competitiveness."[1] Data for three of these four factors (excluding "profit margins") are compiled by the Bureau of Labor Statistics and are reviewed below (p. 9).

Klein continues, "Behind these factors lie many important social and institutional forces that have much to do with competitiveness. Dedication to the buildup of a country's export position, as exemplified by MITI and JETRO for Japan, education of a population toward a strong work ethic, parsimonious living, and strong technological education are among the background factors that make an economy competitive. . ."

But things are more complicated than Klein indicates. Sustained productivity gains yield increases in real income as well as cost reductions, and part of this income will be spent on imports, offsetting some or all of the trade-balance improvement from more competitive prices. Trade–balance gains stemming from productivity advances or restraints on wages and other costs may activate counterbalancing mechanisms (for instance, a rise in the exchange rate) that tend to reverse those gains. Breakthroughs by one firm or industry may spur adjustments that hamper other trade–affected industries; in a textbook example, oil and gas discoveries in the North Sea around 1970 caused such heavy demand for the Dutch, Norwegian and British currencies that they rose to levels at which these nations' manufacturing industries had trouble competing. Capital inflows responding to policy shifts can drive exchange rates to levels that tilt the playing field, as Americans learned to the joy of consumers but the chagrin of many producers in the mid–1980s. Moreover, "parsimonious living" (i.e. low wages and profits) is not an acceptable goal of national policy. An excessively low exchange rate also reduces living standards.

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[1] Lawrence R. Klein, Components of Competitiveness, *Science*, v. 241, July 15, 1988. p. 309.

Hence an analysis of factors affecting a nation's ability to be the low bidder in world competition does not lead to a program of action that can be relied on to improve its trade balance.

RELATIONSHIP OF COMPETITIVENESS TO PRODUCTIVITY GROWTH AND U.S. LIVING STANDARDS

The ultimate concern of economic policy is the living standard of all Americans, whether or not they work in industries engaged in international competition. Competing successfully in world trade is best seen as part of the broader issue of raising living standards generally. While the significance of international competitiveness is elusive, we know that the principal source of high living standards is high productivity — high real output per unit of inputs in the production process — and rising living standards come mainly from rising productivity. High and rising productivity may or may not increase the Nation's trade balance, but it certainly would yield high and rising living standards.

Ideally one would wish to examine the productivity of *all* inputs, including capital, energy and other materials. Complexities of measurement and statistical methods, however, limit most analyses to comparisons of *labor* productivity. Differences in labor productivity among nations are explained mainly by differences in capital inputs per worker and the technology they contain — technology embodied in human beings as well as in infrastructure, machinery, equipment, structures and the organization of production.

Productivity gains come in various forms. One form is an improvement in production processes that reduces costs. Another is an advance that yields a technically superior or wholly new product and sometimes a whole new industry. When successful, both types of advances initially mean higher real incomes for producers who implement them. In the longer run, as knowledge spreads and innovations are copied, competition brings lower prices and/or better products to customers, raising living standards of buyers both at home and abroad.

The innovating nation's products become more attractive in international competition, enabling it to sell and probably to earn more abroad and to purchase imports on more favorable terms. An improvement in its "terms of trade" may take the form of a higher exchange rate, making purchases abroad cheaper — another route to rising living standards. But the quantitative importance of rising terms of trade is likely to be small for the United States, a country with a relatively small trading sector and a large home market. Most of the benefits of productivity gains are reaped as real income gains at home.

Policy makers would wish to consider some of the same alternatives to boost living standards in general as to boost international competitiveness in particular: (1) accelerating research and technology development; (2) increasing market-oriented education and training; and (3) boosting infrastructure maintenance and expansion. If national living standards are the goal, these approaches would be applied broadly without special consideration for exporting industries or facilities. Private industry does not invest as much in these areas as the returns to society warrant, because returns to such investments spread beyond the investing firms; government funding therefore is warranted. Such policies to enhance productivity work gradually at best, however, and results even of vigorous initiatives are likely to become discernible only in a decade or more.

When formulating policies to increase the Nation's trade balance in the short term, policy makers would wish to focus mainly on macroeconomic factors affecting national saving and international capital flows. Unless efforts include appropriate revisions of macroeconomic conditions, such as reducing consumption spending, results measured by changes in the trade balance probably will be disappointing.

Here the actions implied are likely to be onerous. The most direct and effective ways for government to reduce national consumption spending are (1) to cut government expenditures that contribute to consumption and (2) to raise taxes on consumption.

Many consumption-generating government programs involve transfer payments to the elderly, sick and disabled that are made for reasons of compassion. One could curtail payments, however, to people who are well-off without them, outlays for programs that are not accurately targeted or do not function as intended, subsidies to inefficiency, and administrative costs. Federal investment spending, including military investment, also must be put to a rigorous cost-effectiveness test. The desired effect will be obtained only if spending cuts by the Federal government spur minimal offsetting reductions in saving by State and local governments and the private sector.

Tax increases to curtail consumption and boost national saving are likewise onerous. Personal income and payroll taxes are likely to fall heavily on consumption spending as are excise taxes. Increases in taxes on corporate income and personal investment income fall more heavily on saving. Special tax preferences to encourage private saving, however, often have proven ineffective and, by losing government revenue, have reduced overall national saving.

MEASURING COMPETITIVENESS

Data on unit labor costs in manufacturing — partial indicators of competitiveness — have been compiled for the United States and 13 other major trading nations by the U.S. Bureau of Labor Statistics (Department of Labor). They are provided in home currencies and converted to U.S. dollars using current market exchange rates. Such data have been compiled also for a number of individual manufacturing industries in the United States, Japan, Germany and France.

The BLS discourages comparisons of *levels* of labor productivity and unit labor costs because of data inconsistencies among nations. But indexes comparing the *changes* in these variables over time among countries are widely used. It should be reemphasized that these data encompass only manufacturing sectors. They do not include the actual prices of goods or services and hence do not account for mark-ups over labor cost, for which no consistent information exists.

BLS also has compiled data on real gross domestic product (GDP) per capita and per employed person in the same set of countries. As measures of real income, these figures are converted to dollars using estimated purchasing-power-parity exchange rates. These series encompass the entire economy, including service sectors, and constitute indicators of national living standards and productivity. They relate to competition among nations only to the extent that nations are engaged in productivity "derby" or a race to the highest living standard. According to BLS, the United States still leads this derby with Canada close behind and other countries lagging by 15 percent or more.

Because real GDP per employed person is an indicator of both real income and productivity, it serves to remind us that at the aggregate level the two are equivalent. Low-income countries have proportionally lower average productivity than higher-income countries, and average production costs compared using purchasing-power-parity exchange rates should be the same. If this is so, then differences in competitiveness stem either from differing cost rankings among *sectors* between countries (comparative advantage) or from deviations in exchange rates from levels that represent purchasing power parity over traded products.

Unit Labor Cost Comparisons

What can be inferred from comparisons of unit labor costs in manufacturing? Prior to 1973, when exchange rates were held by governments within narrow (two-percent) ranges with occasional devaluations or (upward) revaluations, comparative unit labor costs were driven mainly by changes in productivity and labor compensation. In fact, exchange-rate changes occasionally were required to offset the effects on competitiveness of diverging trends in unit costs.

Since 1973, when major countries allowed exchange rates to be set by supply and demand in currency markets, their fluctuations have played a large role, as illustrated in figure 1 appearing in a section of this briefing book entitled, Productivity and U.S. Living Standards (p. 22 below). Similar data are shown for the United States and 13 other countries for periods ranging from 1960 to 1989 in Table 1 below (p. 12).

In general since 1973, unit labor costs in U.S. manufacturing have declined relative to those of most of the other countries when each is tabulated in its own currency. Although productivity growth in the United States lagged that of many other countries, increases in labor compensation lagged by even more. Exceptions to this statement were Japan, Germany, the Netherlands and Belgium. This general trend was broken from 1978 through 1980 — years of high inflation and ensuing recession in this country. The downward trend in relative U.S. unit labor costs resumed in 1981 and steepened from 1983 to 1987 (see above-mentioned chart).

When converted to a common currency using market exchange rates, the picture changes, especially in the 1980s. During this period productivity growth in U.S. manufacturing accelerated from its slow pace of the 1970s, and average boosts in hourly compensation were curtailed substantially. Average annual increases in unit labor costs from 1979 to 1989, measured in national currencies, were significantly less in the United States than in every other country shown in table 1 except Belgium, the Netherlands, and Japan. In Japan unit labor costs in yen were *reduced* by nearly 1 percent per year.

Between 1980 and 1985, however, the U.S. dollar soared relative to the European currencies and rose moderately relative to the Canadian dollar and Japanese yen. Measured in dollars, therefore, Canadian unit labor costs rose somewhat less than U.S. costs, and Japanese and European unit labor costs *fell between 2 and 10 percent per year*. U.S. industries faced with foreign competition were priced out of markets at home and abroad, not because their production costs were rising faster, but because of macroeconomic influences on exchange rates that were beyond their control.

The dollar retraced its rise however, from 1985 through 1988 and has subsided more slowly since then to about 10 percent below its 1980 level against these major currencies. Therefore U.S. manufacturing competitiveness, viewed in the aggregate, now looks fairly promising again.

Eight of 13 U.S. industry groups had higher rates of productivity growth in the 1980s than from 1973 to 1979. One industry, however, accounted for much of the overall difference. The productivity growth rate for nonelectrical machinery producers rose from only 0.8 percent annually from 1973 to 1979 to 10.6 percent from 1979 to 1985. All of that increase was due to the rapidly improving productivity of the computer-manufacturing industry, measured in part by the *quality* of its output. Excluding nonelectrical machinery, U.S. manufacturing productivity growth reversed only half as much as otherwise of the slowdown experienced in the 1970s.

Nonmanufacturing industries, furthermore, showed very little improvement in productivity growth in the 1980s. The private business sector excluding manufacturing recorded productivity growth of 2.7 percent annually from 1960 to 1973, 0.4 percent from 1973 to 1979, and only 0.6 percent from 1979 to 1989.

Other Measures of "Competitiveness"

Other gauges of "competitiveness" sometimes presented, such as comparative indicators of research and development effort, education and training, or plant and equipment investment, have less to do with traders' present ability to compete internationally than with relative efforts to increase productivity across their economies. They are measures of comparative investments in future income gains in different societies. As such they may be indicators of the willingness to sacrifice today for higher living standards in the future.

Table 1. CHANGES IN UNIT LABOR COSTS IN MANUFACTURING IN THE UNITED STATES AND 13 OTHER COUNTRIES, 1960-1989

Average annual rates of change (1)

Country or area	1960-89	1960-73	1973-89	1973-79	1979-89	1979-87	1988	1989
Unit labor costs: National currency basis								
United States	3.2	1.8	4.4	8.2	2.2	2.5	-1.1	3.0
Canada	4.6	1.6	7.1	9.8	5.5	5.6	4.1	5.5
Japan	3.0	4.3	1.9	6.9	- .9	- .9	-2.4	.4
Korea	NA	NA	12.4	20.2	8.0	6.6	11.2	15.7
Taiwan	NA	NA	7.5	11.3	5.3	5.7	3.2	4.4
Belgium	3.6	3.8	3.4	7.5	1.0	1.3	-3.7	4.1
Denmark	6.3	5.5	7.0	9.4	5.6	6.7	.5	2.2
France	5.8	3.4	7.9	11.2	5.9	7.6	- .8	- .1
Germany	4.0	4.3	3.8	4.9	3.1	3.0	.4	.3
Italy	8.5	5.5	11.0	15.9	8.2	9.1	2.4	7.6
Netherlands	3.6	5.2	2.4	5.8	.4	1.1	-2.2	-2.0
Norway	6.8	5.4	8.0	11.0	6.2	7.6	3.2	-2.0
Sweden	6.3	3.9	8.2	11.3	6.4	6.3	5.1	8.8
United Kingdom	7.3	4.8	9.4	18.0	4.6	5.2	.4	3.5
Unit labor costs: U.S. dollar basis								
United States	3.2	1.8	4.4	8.2	2.2	2.5	-1.1	3.0
Canada	3.9	1.3	5.9	6.9	5.4	4.0	12.2	9.6
Japan	6.5	6.6	6.3	10.8	3.7	4.4	10.1	-6.8
Korea	NA	NA	8.8	16.4	4.5	- .2	25.0	26.1
Taiwan	NA	NA	10.0	12.4	8.6	7.4	14.4	13.3
Belgium	4.4	5.8	3.3	12.7	-1.9	-1.7	-2.2	-2.9
Denmark	6.1	6.6	5.7	11.9	2.2	3.3	2.1	-5.9
France	4.9	4.2	5.4	12.0	1.7	3.0	.0	-6.7
Germany	6.9	8.0	6.0	11.6	2.8	4.0	2.7	-6.3
Italy	5.6	6.0	5.2	9.2	2.9	3.1	2.0	2.2
Netherlands	5.7	7.7	4.2	11.7	- .1	.9	.2	-8.6
Norway	6.9	7.2	6.7	13.3	2.9	3.8	6.6	-7.5
Sweden	5.4	5.3	5.6	11.5	2.2	1.2	8.7	3.4
United Kingdom	5.4	3.7	6.7	15.2	1.9	1.9	9.0	-4.8

NA = Not available.

(1) Rates of change based on the compound rate method.

(2) Adjusted to include employment taxes that are not compensation to employees, but are labor costs to employers.

Source: U.S. Department of Labor, Bureau of Labor Statistics, May 1991.

ADVANCING U.S. LIVING STANDARDS: THE ROLE OF THE TRADE DEFICIT[*]

In the post-World War II period the United States ran current account trade deficits but until the 1980s they never exceeded 1/2 percent of GNP. However, between 1982 and 1987 the U.S. trade imbalance grew to more than 3 1/2 percent of GNP. Since then the trade deficit has declined to just below 2 percent of GNP, still an historically high level. This sharp deterioration of the U.S. trade balance was focused largely on merchandise trade. Imports of goods rose sharply — up 66 percent between 1982 to 1987 — but not out of proportion with GNP growth. The large change was on the export side, rising well behind the growth of U.S. income and the growth of imports. Also contributing to the growth of the current account deficit in this period was a significant reduction in the U.S. trade surplus in services. (See table 2.)

TABLE 2. Recent Trends in the U.S. Balance of Payments
(U.S. $ in Billions)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Current Account Balance	-5.9	-40.1	-99.0	-122.3	-145.4	-162.3	-128.9	-110.0	-99.3
Percent of GNP	0.2	1.2	2.6	3.0	3.4	3.6	2.6	2.1	1.8
Merchandise Trade Balance	-36.4	-67.1	-112.5	-122.1	-145.1	-159.5	-127.0	-114.9	-108.7
Merchandise Exports	214.0	206.1	224.1	220.8	224.5	256.0	324.2	370.0	398.0
Annual Rate of Change	-10.9	-3.7	8.7	-1.5	1.6	14.0	26.6	14.1	7.6
Merchandise Imports	249.5	271.3	334.3	340.9	367.8	412.5	450.1	480.9	502.7
Annual Rate of Change	-6.6	88.7	23.2	2.0	7.9	12.2	9.1	6.8	4.5
Services Balance	12.1	9.5	2.7	-0.9	4.7	6.4	11.5	20.5	22.9

Source: U.S. Department of Commerce.

As the U.S. current account balance deteriorated, public concern with the phenomenon rose. It was argued by some that the growing deficits were symptomatic of the declining efficiency of American industry relative to foreign producers. Others suggested that rising foreign protectionism was inhibiting competitive American goods from entering foreign markets. In the manufacturing sector in the 1980's productivity advanced at a pace well ahead of the previous decade and more rapidly than productivity in the manufacturing sector of most of our trading partners. As regards foreign trade barriers, the U.S. trade deficit arose at a time when foreign restrictions were stable or being reduced. Even if the efficiency of U.S. industry had declined and foreign protectionism had increased, neither is likely to have affected the U.S. trade deficit.

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[*] Prepared by Craig Elwell, Specialist in Macroeconomics, Economics Division.

The reality is that U.S. trade deficits in the 1980s were largely the consequences of macroeconomic forces given movement by the spending and savings decisions of American households and government. In the 1980s the United States consistently spent more than it produced, the difference coming, as it must, from abroad as imports in excess of exports. From the beginning of the last economic expansion that began in earnest in 1983 through 1986, domestic demand grew faster than domestic production (see table 3).

TABLE 3. Recent Trends in Real Spending and Production in the United States
(percent change)

	1983	1984	1985	1986	1987	1988	1989	1990
Domestic Production	3.6	6.8	3.4	2.7	3.7	4.4	3.0	1.0
Domestic Demand	5.1	8.7	3.8	3.8	3.2	3.3	2.4	0.7
Private Consumption Expenditure	4.6	4.8	4.7	3.9	2.8	3.4	2.7	1.0
Public Consumption Expenditure	1.1	4.4	7.9	4.2	2.6	0.4	2.7	2.9
Investment Expenditure	8.2	16.8	5.3	1.0	2.6	5.8	1.6	0.0

Source: Organization for Economic Co–operation and Development.

The problem has not been output. Over the course of the expansion it rose somewhat faster than the average for the postwar period. The pace of domestic spending, however, surged ahead much faster. In 1984, for example, the volume of domestic output increased nearly 7 percent (see table 3), but domestic demand increased nearly 2 percentage points faster.

Pacing the United States' collective spending spree was private consumption expenditure (see again table 3). With their disposable incomes augmented by Federal tax cuts, households spent with steady exuberance, outpacing total production in 1983, 1985 and 1986. Public consumption also grew briskly from 1984 through 1986. Investment spending, in contrast, exhibited a rather lackluster pattern in this period. As would be normal in the early phase of a business expansion, investment boomed in 1984, but the next two years saw a sharp deceleration in investment spending, with only a very modest rebound over the rest of the years of the expansion. Dampened investment spending was the predictable result of the high real interest rates that accompanied the national spending spree. However, because high real interest rates also attracted foreign funds, investment in the United States was higher than it otherwise would have been.

Since 1987 the trade deficit has steadily shrunk, standing in 1990 at $99 billion or 1.8 percent of GNP. This has been accomplished by a slowing of public and private consumption as well as investment spending. Given that domestic production could not realistically be accelerated, this slowdown in domestic spending is the only viable path to a smaller trade deficit. Although one might certainly argue whether a different pattern of slowdown —more slowing of consumption less of investment — might be a more prudent course.

The ultimate significance of a trade deficit is that it allows a nation to alter the temporal pattern of national expenditure. In the 1980s the United States chose to borrow from abroad to support an increase in current consumption. Of course the accumulated debts — already near $700 billion and growing — will need to be paid back or at least debt service payments to foreigners met. At that point our national level of consumption must fall below what it otherwise would have been. To enjoy a temporary increase in the current living standard the United States must endure some significant erosion of the growth of the future living standard. This annual decrement is unlikely to exceed 1 percent of any future year's GNP but would represent a more sizable chunk of the typical 2 to 3 percent annual increase in U.S. real income. The wisdom of U.S. policies of the 1980s hinges on how one values the gain in current income against the loss of future income.

Of course a trade deficit can also be used to sustain or to accelerate the growth of future living standards. The net inflow and output of foreign funds can be used to support domestic investment. Such capital accumulation will tend to accelerate the rate of growth of output and raise future living standards. Debt that is incurred can likely be paid back with some portion of this new output, leaving the remainder to augment domestic consumption.

As the United States faces the 1990s, there is a growing understanding of the importance of investment to the process of technological advance, economic growth and a rising standard of living. Whether the United States will be able to generate sufficient funds to support an appropriate level of domestic investment remains problematic. In the 1980s the U.S. net national savings rate averaged 3.3 percent of GNP, while the rate of net domestic investment averaged 5.1 percent of GNP. The shortfall of savings was made up by an inflow of foreign funds that averaged 1.8 percent of GNP in this period. Put another way, nearly 40 percent of U.S. net investment was financed by foreign savings.

If, in the decade ahead, American households and their government do not curtail their rate of spending and raise domestic savings to a level sufficient to meet the nation's investment needs, we may have to rely on a continued inflow of foreign savings (and the associated trade deficit) to sustain U.S. investment.

Some economists predict that, absent a significant rise in U.S. savings rates, an annual current account deficit of $40 to $60 billion would be needed to support a relatively normal rate of domestic investment. If the needs of economic growth in the 1990s argue for a higher rate of investment, then a larger trade deficit might be required.

The United States' ability to rely on foreign funds is likely to be limited, however. In the 1980s the American economy accumulated a sizable stock of debt, and prudent limits imposed by the debtor and creditor alike may limit how much more rapidly this stock can grow in the future. The United States must also recognize that many of the trade surpluses in the world economy are vanishing. Many of the high savings countries in the world which ran large trade surpluses in the 1980s, such as Germany and Japan, have now begun to absorb those funds in their domestic economies, in part at the urging of the U.S. Government. Moreover, given a world of capital-starved, poor nations, we should consider how much of world savings a rich country like the United States should absorb.

PRODUCTIVITY AND U.S LIVING STANDARDS*

The most important aspect of productivity growth is its effect on domestic living standards. Over the long run, the growth in a country's standard of living closely parallels the growth in its productivity level.

Here *productivity* is defined as the inflation–adjusted value of output that a worker can produce in an hour. *Standard of living* is defined as the inflation–adjusted value of national output in a given year divided by the total population which that output supports. When changes in these values are adjusted to exclude changes in price levels, they can be compared over time.

Both productivity and the standard of living have grown at precisely the same rate (1.8 percent per year) when averaged over the 43–year period between 1947 and 1990.[2] Both growth rates are based on measures of output growth. However, since the productivity ratio shows output in relation to (divided by) the number of worker hours (or workers) and the standard of living ratio shows output in relation to (divided by) the total population, changes in the employment–to–population ratio or the average work week over time can affect the synchronized movement of the two ratios.

In fact, this is what has happened. *Productivity*, between 1947 and 1973, grew at an average annual rate of 2.5 percent. Between 1973 and 1990 it slowed to about one–third that rate, growing at only 0.8 percent per year.

In contrast, *standard of living*, between 1947 and 1973 grew at an average annual rate of 2.1 percent. Between 1973 and 1990 it slowed to about 70 percent of that rate, or at about 1.5 percent per year.

The reason that productivity and standard of living growth rates have not parallelled each other for the entire 43–year period is that in the 1950s and early 1960s the population, swollen by the "baby boom", grew faster than the labor force. Conversely, in the mid–1970s employment grew faster than the general population, as "baby–boomers" and larger numbers of women entered the labor force.

After World War II until 1973, U.S. productivity and standard of living growth rates generally accelerated, partly because wartime technology exploded into peacetime manufacturing and more and more workers left farming and funnelled into urban manufacturing jobs.

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* by Mary Jane Bolle, Specialist in Labor Economics, Economics Division.

[2] Productivity figures, here defined as real gross domestic product per worker hour, are listed on page 338, Table B–46 of the 1991 *Economic Report of the President*. Standard of living figures, defined as real gross domestic product per capita are derived from gross domestic product figures on page 297 (Table B–9) and population figures on page 321 (Table B–31) of the 1991 *Economic Report of the President*.

Starting in 1973, output growth was hampered by the oil crises of 1973–74 and 1979-80, and the resulting higher energy prices made production equipment, which typically relied heavily on energy input, obsolete. At the same time that more energy–efficient equipment was being developed, a seemingly endless supply of workers (the denominator of the productivity ratio) became available, as the baby boom generation and women entered the workforce in unprecedented numbers. This extra supply of labor motivated business to substitute additional workers for additional machinery as a means of increasing output. This tended to slow increases in output per work hour, as increases in workers outpaced increases in capital as factor inputs into the production process.

AN ERA OF REDUCED EXPECTATIONS

Statisticians, who had projected standard of living and productivity growth rates on the basis of the experience from 1947 to 1973, fueled expectations that the standard of living in the United States would continue to double every generation (roughly every 25 years).

However, at the rate that productivity and standard of living have been growing in the United States since 1973, it will take about twice as long for the standard of living to double again (until about 2020) and three times as long for productivity to double (until about 2060).

Implications for a slower growth of standard of living are seen throughout the economy: it affects household budgets and government budgets and forces expectations down to reality. While some items become less expensive — i.e., (sometimes imported) electronic goods such as video tape recorders and computers — others become relatively more expensive (or smaller) — i.e., housing and autos.

U.S. PRODUCTIVITY AND STANDARD OF LIVING IN A WORLD CONTEXT

After World War II, the United States had by far the highest standard of living in the world. Although the United States still has the highest living standard and productivity levels in the world, other countries have been catching up and, in terms of both measurements, are gradually converging toward the American level.

Changes in productivity and living standards abroad can affect productivity and living standards in the United States in a number of ways, some direct and some subtle. First, the growth in world trade tends to encourage nations to specialize in the production of those goods and services in which they are most efficient. This leads to lower world prices and higher real income everywhere. Second, national specialization leads to investment in those industries in which nations are efficient, encouraging the application of new technologies and even greater efficiency, which lower world prices and raise living standards. Third, technologies developed abroad can be adopted by American firms, thereby increasing the efficiency with which American firms use their own resources. The major advantage claimed for free trade is that it encourages production to be located in that place where it is most efficient, and that it raises the real income (and ultimately the standard of living) of the world.

POLICY CONSIDERATIONS AFFECTING U.S. PRODUCTIVITY GROWTH

What can the United States do to raise productivity and living standards? Possible efforts fall into three main categories. The first category is attention to fiscal and monetary policy to provide a stable economy and lower real interest rates to encourage investment in new productivity-increasing plant and equipment. Fiscal policy could make an important and direct contribution to increasing productivity through a smaller budget deficit. To accomplish this would require a rise in taxes or a decline in expenditure growth.

The second category is attention to the quantity and quality of output (the numerator of the productivity and standard of living ratios) primarily through influences on the development of new technology. Policy options include the review of patent and antitrust laws to promote invention, innovation, and dissemination of new ideas, and review of tax laws to encourage savings to help reduce pressure on interest rates.

The third category is attention to the quantity, quality, and adaptability of labor. A well-educated worker with good cognitive and creative thinking skills has a much better chance of increasing productivity than one who is illiterate or otherwise without well-developed skills. This suggests legislative examination of such issues as tax breaks for education and training, expansion and improvement of adult education programs, and possibly increased or more effective Federal funding for student aid programs. Machines can only improve productivity through workers who design, build, and run the machines. From a policy standpoint, this means exploring ways to improve the education and reeducation of the individual, from pre-school through adult education and retraining.

PRODUCTIVITY AND THE COMPETITIVENESS OF U.S. GOODS IN THE INTERNATIONAL MARKETPLACE

In the international marketplace, two measurable factors heavily affect the competitiveness of individual products. One factor is *labor costs*. (Labor costs are often the most expensive component of production costs. They are also a cost that can be easily measured.) The other factor is *exchange rates*, which affect the prices of U.S. goods in the marketplace.

An index of competitiveness is published by the Bureau of Labor Statistics. First it uses a measure that combines productivity and labor costs. This is called *unit labor costs*. *Unit labor costs* are defined as *compensation per worker* per hour divided by *productivity* (output per worker per hour). Then this measure of competitiveness adjusts unit labor costs for exchange rates.

The solid line in figure 1 charts this measure of competitiveness for U.S. manufactured goods relative to the goods of 12 major trading partners.[3] The dotted line in figure 1 shows U.S. unit labor costs relative to those of the 12 competitors *not* adjusted for exchange rate changes.

What these two lines taken together show is that before adjusting for exchange rates, U.S. unit labor costs, relative to the 12 trading partners, were slightly lower in 1985 than they were in 1978. However, adjusting for the appreciation of the dollar in 1985, unit labor costs were about a third higher than they were in 1978.

What figure 1 shows is that for 5 years, 1982 through 1986, *on the basis of unit labor costs adjusted for exchange rates*, U.S. manufactured goods were less competitive in the international market place than they were in 1973. For the remaining 11 years, U.S. manufactured goods were more competitive. And in 1988 U.S. unit labor costs adjusted for exchange rates, relative to the 12 competitors, were 25 percent less than they were in 1973.

This competitiveness index relates only to the relatively small foreign trade sector of the U.S. economy. But the foreign trade sector has grown as a fraction of total output over the past forty years.

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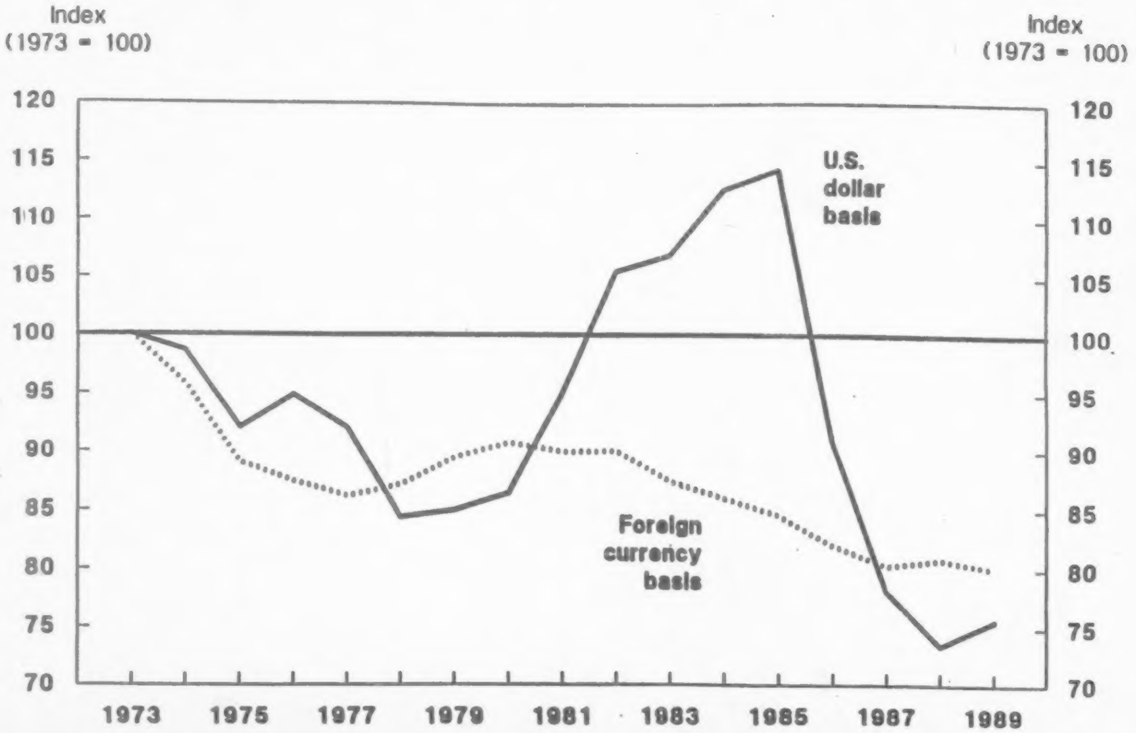
[3] These competitors are Canada, Japan, Korea, Taiwan, Denmark, France, Germany, Italy, the Netherlands, Norway, Sweden, and the United Kingdom. Country weights take into account the volume of trade with the United States.

FIGURE 1.

U.S. manufacturing unit labor costs relative to 12 competitors, 1973-89



Source: U.S. Department of Labor. Bureau of Labor Statistics. International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1989. Press Release July 27, 1990.

TRADE NEGOTIATIONS*

Basic international trade theory holds that nations export those goods and services that they can produce more cheaply relative to the rest of the world and import the other goods and services they need. Uninhibited international trade promotes the general economic welfare of each nation and therefore the world as a whole because it permits countries to achieve the highest level of production and, therefore, income with a given endowment of land, labor, and capital. According to trade theory, barriers to trade impose a cost on society in general by reducing the level of production and therefore income.

MULTILATERAL NEGOTIATIONS

The multilateral framework for international trade negotiations, the General Agreement on Tariffs and Trade (GATT), was established in 1948 to promote uninhibited international trade. The GATT was a postwar response to the regime of high tariffs that severely crippled trade among the major economic powers and that is widely believed to have contributed to the deepening of the world depression in the 1930s. The original 23 signatory countries to the GATT established a set of principles governing trade among them, the most basic principle being nondiscriminatory treatment, or treatment of the "most-favored nation." Approximately 100 countries and economic regions are now GATT signatories.

Over time, the GATT signatories have held seven rounds of negotiations during which they have drastically reduced tariffs in trade among themselves and have moved towards reducing nontariff barriers. The success of the GATT rounds has been largely credited with the dramatic surge in world trade and for much of the impressive record of world economic growth since the end of World War II. The objective of the eighth round, the Uruguay Round, has been to continue where the seventh round, the Tokyo Round, left off, but also to expand the GATT's coverage to include important international trade sectors not yet covered — agricultural, services, and textiles. Under the Uruguay Round the signatories also seek to cover significant nontrade areas — intellectual property rights and investments. If the Uruguay Round leads to effective agreements, foreign trade, and with it general economic growth, can be expected to expand even further.

BILATERAL NEGOTIATIONS

U.S. trade policy has been geared towards developing and expanding the GATT and opening markets multilaterally. At the same time, the United States has negotiated bilaterally with its major trading partners on issues not covered by the GATT, such as services trade, trade-related investment barriers, or intellectual property rights protection, and on issues that are specific to the bilateral relationship, such as semiconductor trade with Japan.

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* Prepared by William H. Cooper, Specialist in International Trade and Finance, Economics Division.

The United States has negotiated bilaterally to open markets for American exports. Perhaps among the most extensive and arduous negotiations have been with Japan. Although Japan has removed most of its border barriers to imports — high tariffs and quotas — many still perceive Japan as a relatively closed economy because of less visible barriers such as customs procedures, standards and certification regulations, and government procurement policies.

In many cases, the United States has negotiated to get Japan to open its markets to products and services that U.S. policymakers and industries determined would be competitive in the Japanese market but were kept out because of Japanese import barriers. In the mid-1980s, Japan and the United States undertook the Market-Oriented Sector-Selective (MOSS) talks. These talks covered five product sectors — telecommunications, medical equipment and pharmaceuticals, forestry products, electronics, and auto parts — that the United States determined offered significant export potential in the Japanese market. The two sides have conducted negotiations in product areas outside MOSS as well, including semiconductors, satellites, agricultural products, and construction services. In general, these negotiations are considered to have expanded U.S. export opportunities. However, it is difficult to measure their impact on trade flows since other factors, such as exchange rates, also play an important role. Nevertheless, economists would argue that the degree to which these agreements help eliminate trade distorting practices, increases the gains from trade and the economic welfare of both countries.

The United States has also reached bilateral agreements with major trading partners to restrict their exports in the form of "voluntary export restraint arrangements" (VRAs). Representatives from import-sensitive American industries have claimed that they need the protection from surges in foreign competition to permit them to adjust and once again become competitive. Some have also argued that certain industries are important to the U.S. national security and must be protected from foreign control. Presently, VRAs, formal and informal, are in place on imports of machine tools and steel with the major exporting countries. Many economists argue that controls on imports reduce supplies and raise the cost of imports and comparable domestically produced products. The costs are passed on to consumers and reduce the gains from trade.

The United States has entered into bilateral free trade arrangements (FTAs) with Israel and with Canada. Under these arrangements tariffs are eliminated in bilateral trade. The arrangements also cover other trade-related areas. In the U.S.-Canada FTA, which went into effect on January 1, 1989, both sides provide each other "national treatment" in investment and services, and have established a "dispute settlement" mechanism for antidumping and countervailing duty cases. The Bush Administration is pursuing an FTA with Mexico that could lead to a U.S.-Canada-Mexico trilateral arrangement possibly encompassing issues beyond trade, such as labor rights and standards.

Economists argue that FTAs create trade by eliminating trade barriers and pushing inefficient producers out of business. FTAs can also divert trade from efficient producers outside the FTA that still face import barriers to less efficient producers inside the arrangement. Whether the FTA is economically beneficial to the trading partners and the world as a whole, depends on whether more trade is created than diverted under the arrangement.

UNILATERAL MEASURES

The United States is the largest export market for many of its trading partners. It has used this leverage as a tool to pry open foreign markets for American exports and to control the impact of foreign competition on domestic industries.

Section 301 of the Trade Act of 1974, as amended, has been the primary trade authority that administrations have used in dealing with trade partners on market access issues. It authorizes the executive branch to apply trade restrictions against products and services of foreign countries that impede U.S. commerce. Congress has revised section 301 to prod the executive branch to actively go after foreign trade barriers.

The most recent and sweeping revisions were part of the Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418) especially the "Super 301" provisions. Super 301 required the United States Trade Representative (USTR) to identify the most egregious practitioners of "priority" unfair trade practices, that is, unfair trade practices that have cost the United States the most in lost export opportunities. In May 1989, USTR Carla Hills named Japan, Brazil, and India under super 301. As required by the statute, Ambassador Hills pursued and reached agreements with the three countries. Only India was named in April 1990, the second and final year of super 301, but was dropped soon thereafter. During the 102nd Congress, some Members have called for reauthorization of super 301 or the passage of a similar but stronger measure. The Bush Administration has argued it does not need this authority in order to get foreign countries to open their markets.

Some U.S. trading partner countries, including the European Community and Japan, have asserted that section 301 and its variants, are unilateral because the United States becomes both judge and jury of their trade practices. In addition, they claim that threats of closure of U.S. markets are protectionist and violate the spirit and letter of GATT. The United States has argued that the section 301 authority helps to bring foreign trade barriers down and thereby improve the efficiency of world trade.

CONCLUSIONS

In sum, the United States has pursued trade negotiations along several avenues — multilateral, bilateral, and unilateral. In general, the negotiations will improve the efficiency of international trade, and therefore, living standards, if they encourage production by efficient producers rather than divert trade towards less efficient producers. In the long run, trade negotiations are more likely to affect trade patterns rather than trade balances. Trade patterns, that is the commodity mix of a country's trade, are determined, in large part, by endowments of labor, capital, natural resources, and technology. They are also affected by trade policies and practices, such as trade barriers, that are the targets of most trade negotiations. Trade balances, however, are largely determined by a country's macroeconomic balances, that is, whether, a country maintains a savings–investment balance.

STRATEGIC TRADE POLICY[*]

Strategic trade policy refers to government intervention in a trading sector characterized by relatively few large firms and by governments, whose actions are interdependent. One definition of strategic trade policy is that "government policy can tilt the terms of oligopolistic competition to shift excess returns from foreign to domestic firms.[4] Strategic trade theory suggests that, under certain limited conditions, a government can intervene in trade to improve a country's economic welfare. Most economists believe, however, that as a general rule, free trade maximizes the welfare of all countries.

Economic analysis of the costs and benefits of strategic trade policy is still in the early stages. Nevertheless, the economic analysis summarized in this paper can contribute some insights into the feasibility of such intervention.

The following questions are addressed in this paper. What is the classical case for free trade, based on the principle of comparative advantage? Is there an economic rationale for government intervention? What are the limitations of strategic trade policy? Based on the evidence to date, what policy prescriptions might be offered?

FREE TRADE AND COMPARATIVE ADVANTAGE

Most economists agree that free trade, based on the principle of comparative advantage, provides the greatest benefits to all countries. Each country's comparative advantage arises from its particular combination of land, labor, capital, tastes, and technology. In effect, countries trade to take advantage of their differences. Everyone gains as international trade expands the size of the pie; it is not a zero sum game.

The principle of comparative advantage is based on an environment in which there are many buyers and sellers, none of which are large enough to affect the price of goods and services (perfect competition, in the jargon of economists). If one firm were to earn excess profits, other firms would be attracted to the industry, and the excess profits would disappear. Also, it is assumed that, under perfect competition, economies of scale (where average costs decline as output increases) do not exist.

Most international trade still reflects comparative advantage. But many argue that large multinational firms, which may earn excess returns and can take advantage of economies of scale, now account for a growing proportion of international trade.

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[*] Prepared by Arlene Wilson, Specialist in International Trade and Finance, Economics Division.

[4] Krugman, Paul R., Is Free Trade Passe? *Economic Perspectives*, Vol. 1, No. 2, Fall 1987. p. 134.

RATIONALE FOR STRATEGIC TRADE POLICY

The main rationale for strategic trade policy is that, in an environment of imperfect competition (relatively few large firms in an industry), some firms earn excess returns. It is assumed that other firms cannot enter the industry because of high start-up costs or other factors; therefore the excess returns are not "competed away." But, it is argued, the excess returns can be shifted from a foreign firm to a domestic firm by government intervention.

For example, assume a market is large enough to support only one or two firms, and the development costs are high. The classic case is that of wide-bodied jet aircraft. One country could, by subsidizing the domestic firm, give it a head start and deter entry by foreign firms. Thus, the subsidy shifts the potential excess returns from a foreign firm to a domestic firm. Or, if foreign firms are earning excess returns, a tariff could shift some of those returns to domestic firms.

The presence of economies of scale, likely in large oligopolistic firms, strengthens the case for government intervention. For example, if a domestic firm's costs are declining as its output increases, a government subsidy could increase the domestic company's returns at the expense of the foreign firm.

The gains to the domestic firm from shifting excess returns are losses to the foreign firm. Unlike the free trade case, strategic trade policy is a zero sum game. Will the foreign government retaliate, and, if so, how? Here the analysis becomes more complicated since many possibilities exist. For example, in response to a subsidy, a foreign government can do nothing, or can provide temporary or permanent subsidies. If the foreign country does subsidize, the domestic country may increase its subsidy, or withdraw it. The ultimate outcome of a subsidy, then, is not clear cut, and may vary widely in different circumstances.

According to one author, the possibility of retaliation leads to the following general conclusions:

> "The general conclusions to be drawn from consideration of retaliation in policymaking are, first, that policymakers should at least consider likely retaliation when considering policy, and second, that there is something to be said for an explicit policy of limited retaliation to the policies of other countries."[6]

Another rationale for government intervention is that a firm or industry may generate positive externalities when its product produces special benefits to society over and above those than can be captured by the firm or industry. A clear example occurs when a technological breakthrough is developed and paid for by one firm, but is used by other firms. Knowledge spreads fairly rapidly, especially since one firm can easily disassemble a product to see how it works. Individual firms, since they cannot appropriate all the benefits of technological innovation, may engage in less research than is optimal for society as a whole.

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[6] Brander, James A. Shaping Comparative Advantage: Trade Policy, Industrial Policy and Economic Performance. In Lipsey, Richard G., and Wendy Dobson, eds. *Shaping Comparative Advantage*. Policy Study No. 2, C. D. Howe Institute, Toronto, Canada, 1987. p. 27.

In the case of positive externalities, government subsidies might result in production of a good that would otherwise be undersupplied. This argument has often been used to justify government assistance to high tech industries.

Unlike the excess returns rationale, government subsidization to adjust for market externalities is not new. But some analysts include it in the rubric of strategic trade policy. One important difference, however, is that domestic gains in the externalities rationale are not necessarily at the expense of foreign industries as in the excess returns case.

LIMITATIONS OF STRATEGIC TRADE POLICY

While, in theory, capturing excess returns appears feasible, in practice, the size of excess returns is questionable. To the extent that new firms can enter an industry, excess returns will disappear. Some suggest that excess returns, where they exist, are present for only a relatively short time.

Obtaining information on excess returns, or measuring externalities, is a formidable task under the best of circumstances. It is possible that the gains from intervention are quite small. And models of how oligopolists behave are not clear cut, as in the case in perfect competition, making it difficult to analyze the effect of government intervention in particular cases.

Government policies designed to help a particular sector take resources away from other sectors. Benefits to one sector are costs to another. Weighing the benefits and costs to the economy as a whole might reduce or eliminate the net gains from strategic trade policy.

The effect of possible foreign retaliation is difficult to anticipate, given the wide variety of responses that can occur. But it is an important consideration, since foreign retaliation can, under some circumstances, reduce or eliminate the gains from intervention, or make each country worse off than before the intervention.

Domestic interest groups might exercise undue influence on the decision regarding which industries receive subsidies or trade protection. If so, policies based on an analysis of the costs and benefits might be difficult to achieve.

POLICY IMPLICATIONS

The theoretical arguments no longer indicate that free trade is the optimal solution in all cases. Allowing for an economy characterized at least partly by imperfect competition and economies of scale means that, in some cases, government intervention could theoretically improve a country's welfare.

But, as discussed above, there are many concerns about government intervention in practice. Even most of the economists who developed the theory do not advocate its use. According to Paul Krugman:

> "The intellectual structure on which economists have traditionally based their arguments for free trade has been partially torn down and replaced with a more complex structure that leaves more room for dispute and less certainty. . . . Is the new trade theory about to break the traditional commitment of economists to free trade? The answer appears to be no; the cautions about the applicability of the new trade theory have been taken to heart, and none of the prominent new trade theorists has chosen to become a guru of protectionism.
>
> The new free trade position, however, is not the same as the old. Instead of advocating free trade as part of a blanket endorsement of free markets, today's international economists advocate it as a reasonable rule of thumb in an imperfect world."[6]

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[6] Krugman, Paul. Rethinking International Trade. *Business Economics*, April 1988, p. 12.

TECHNOLOGY AND COMPETITIVENESS[*]

Technology development is recognized as an important part of economic growth and international competitiveness. Improving upon an existing commercial technology or creating a new technology can result in greater market shares and revenues; advances in technology also can provide new methods and processes of production in a global economy. In trying to understand the importance of technology, some have tried to quantify or measure the connection of technology and economic growth. Landau and Jorgenson, in *Technology and Economic Policy*, state that in the modern industrial world "one third to one half of all our growth has come from technological progress" and that "it is the principal driving force for long-term economic growth and the increased standards of living of modern industrial societies."[7]

However, technology development and issues of global competition are more difficult to assess. Who develops a technology, who is able to best take advantage of it, when is a technology available for commercialization, and how is a technology used are just some of the questions which may determine its effectiveness and importance in a global economy. While some argue that we have entered an age of "borderless economies" and free technology flows, others place a great deal of emphasis on the role of national technology policies to protect and nurture advanced or vital technologies.

Defining "science," "technology," "research," and "development" also are important for an understanding of how technology and competitiveness relate. Science (through scientific research) helps expand one's knowledge of the world in either a theoretical or practical sense, while technologies (through technology development) often includes the application of this knowledge through a specific use.[8] Some view science and technology as if they are one activity, and they see excellence in science directly related to national competitiveness in commercial technologies. While excellence in national scientific research can be an important factor in advancing knowledge in certain fields which may (or may not) have applications in technologies, the relationship is not necessarily linear.[9] Some nations, such as Japan, have proven over the short term that their ability to develop innovative new technologies is not related to the number of Nobel Prize awards they receive in science.

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[*] Prepared by Glenn J. McLoughlin, Specialist in Science and Technology, Science Policy Research Division.

[7] Landau, Ralph and Dale Jorgenson. *Technology and Economic Policy*. Cambridge, Massachusetts, Ballinger Publishing Company, 1986. p. 2.

[8] U.S. Library of Congress. Congressional Research Service. *The Research and Experimentation Tax Credit: Standard Definitions of R&D*. Report No. 89-1019 SPR, by Glenn McLoughlin. Washington, 1985. p. 5-10.

[9] The concept that the amount of support for basic research will have a direct and linear effect on technology development is called the "Pipeline Model." It has been one of the major policy directives behind Government and private-sector R&D funding in the United States since World II, although many now are (continued...)

In the United States, while Federal support for scientific research is still relatively strong, it is still not clear whether there should be a more direct role for the Federal Government in providing a policy framework for U.S. industries to develop, innovate, and commercialize technologies.[10] Recently there have been several "critical technologies" reports published in the United States describing those technologies which will be the keys to "economic competitiveness" into the 21st century.[11] Yet Federal support of these technologies, to date, has been selective and, some would state, inconsistent.[12]

For example, in FY 1988, Congress authorized funding so that the Defense Advanced Research Projects Agency (DARPA) of the Department of Defense would provide half of the funding to support a U.S. semiconductor manufacturing consortium. The Semiconductor Manufacturing Technology, or SEMATECH, initiative is intended to provide its fourteen U.S. semiconductor manufacturing members (and ancillary association of U.S. equipment suppliers) with better information and knowledge in semiconductor chip manufacturing. Since FY 1988, Congress has authorized $100 million per year to support this initiative. Yet similar attempts to provide Federal support for other technologies — particularly for technologies where there are no established or mature U.S. industries making

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[9](...continued)
questioning its validity in a global economy. See: Webre, Philip. *Using R&D Consortia for Commercial Innovation: SEMATECH, X-Ray Lithography, and High-Resolution Systems*, Washington, Congressional Budget Office. July 1990. p. 5-10; and, Dickson, David. *The New Politics of Science*. New York, Pantheon Books, 1984. p. 3-55, 115-162.

[10] There have been a variety of bills passed over the last twenty years that address certain aspects of the Federal role in supporting industrial R&D. U.S. Library of Congress. Congressional Research Service. *Technological Advancement and U.S. Industrial Competitiveness*. Report No. 88-689 SPR, by Wendy H. Schacht. Washington, 1988. 33 p.

[11] Some of these critical technologies reports include: U.S. Department of Commerce. *Emerging Technologies: A Survey of Technical and Economic Opportunities*. Technology Administration, U.S. Department of Commerce. Washington, Govt. Print. Off. 1990. 55 p; U.S. Department of Defense. *DOD Critical Technologies Report*. Washington, U.S. Dept. of Defense. 1990. 236 p; and, Council on Competitiveness. *Gaining New Ground: Technology Priorities for America's Future*. Washington, Council on Competitiveness. 1991. 77 p. See also: U.S. Library of Congress. Congressional Research Service. *Critical Technologies Lists: A Comparison*. Report No. 91-367, by Genevieve J. Knezo. Washington, 1991. 2 p.

[12] Davis, Bob. White House, Reversing Policy Under Pressure, Begins to Pick High-Tech Winners and Losers. *Wall Street Journal*. May 13, 1991. p. A16.

a strong case for support — have been received less enthusiastically by policymakers.[13] Efforts to provide large-scale Federal support for High-Definition Television (HDTV) have received some support from Federal policymakers — again, efforts in Japan and their possible domination of this new technology have in part fueled concern in the United States — but Government funding levels have not matched the expectations of those in industry seeking a larger national commitment. In other areas, ranging from high temperature superconductivity to biotechnology, Federal policymakers have funded basic research programs but most believe that commercialization of technologies should be left to industry.

A final consideration is the role of innovation in technology development. While innovation cannot provide the sole impetus for long-term technology development and competitiveness, it is still important and not always fully appreciated by some U.S. industry leaders or policymakers. The invention of new products is what usually stirs the public's imagination in areas such as medicine, consumer goods, or transportation. But innovation of technologies — the building upon an existing technology base of knowledge to make better products or improve upon processes of production — also is vital. Successful innovation in key technologies can increase world market shares, and at the industrial level, revenues from these goods can support technology development and innovation in other fields.

The story of the development of the Video Cassette Recorder, or VCR, demonstrates the importance of innovation. The VCR had its antecedents in a technology called Video Tape Recorders, or VTRs. The VTR was invented in the United States at Bing Crosby Laboratories in 1951. It was further developed by Ampex, a U.S. company, in 1956. After modest successes selling VTRs — which were encased in large consoles and had no record or playback mechanisms — in the U.S., Ampex turned to the Japanese market. During the early 1960s, the Japanese Government secured from Ampex agreements to enter into joint ventures with Japanese companies in return for access to the Japanese market. As Japanese companies developed their own VTR technology, leading Japanese companies (Sony, Toshiba and others) listened to consumers' comments about what they liked and did not like about the VTR and made continual innovations on the VTR to improve it. They replaced reel-to-reel tapes with cassettes, introduced playback and record mechanisms, and reduced the size of the console. Even Sony's gamble that Beta would be the industry standard over VHS was a costly but not an irreparable mistake; Sony rapidly converted to the latter as it became apparent it would become the global standard.[14]

All of these issues are of importance to the 102d Congress: how is technology different from science; who should fund technology development; what is the role of innovation in competitiveness; and how do we identify and develop key or critical technologies. Experts take different views on how technology best can be fostered in a modern competitive world. Michael Porter argues in *The Competitive Advantage of Nations* that it is the "clustering" of certain industries that promotes technological innovation and competitiveness. For Porter, national policies to encourage R&D do not address the "right question" — that technological innovation and competitiveness are critical in a global economy, not necessarily "wealth" in resources, labor, or production.[15] In *Toward a National Technology Strategy: Enhancing Manufacturing Competitiveness*, Eric Bloch, former Director of the National Science Foundation, views technology as part of a continuum, in which a true definition of technology development encompasses a wide range of activities from basic research to marketing. Too often in the United States, states Bloch, there are "artificial boundaries" between research and design and production and marketing. He advocates a wide range of Federal policies to encourage industrial technology development in the United States, from changing tax policies to better use of Federal laboratories.[16] Another viewpoint is that of Robert Reich, in *The Work of Nations: Preparing Ourselves for 21st–Century Capitalism*. In this work, Reich describes R&D, production and innovation as factors in a paradigm in which national boundaries play an increasingly less significant role than the training and knowledge that workers will need to compete in that environment. For Reich, it is not important where innovation takes place, but instead who will be best prepared to take advantage of innovation. In Reich's view, Government policies should address social and cultural issues important to a nation's identity. National efforts to restrict or otherwise protect technology development and innovation are inefficient and not productive to global industries in the long term.[17]

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[13] U.S. Library of Congress. Congressional Research Service. *Semiconductor Manufacturing Technology Proposal: SEMATECH*. Issue Brief No. IB87212, by Glenn J. McLoughlin. [Updated regularly]. Washington, 1987.

[14] Lardner, James. *Fast Forward: Hollywood, the Japanese and the VCR Wars*. New York, Norton. 1987. 344 p.

It is clear from these works and others that many view technology development and innovation as part of a changing and dynamic world economy. For Federal policymakers, the question may be: how does the United States construct policies that allow for competitive technology development and innovation and ensure technology advances in the goods we produce and in the processes used to produce them?

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[15] While these are some of the critical issues discussed in Porter's study, many issues are addressed in his examination of competitiveness of industries. Porter, Michael. *The Competitive Advantage of Nations*. New York, The Free Press. 1990. p. 69–139.

[16] Bloch, Erich. *Toward a U.S. Technology Strategy: Enhancing Manufacturing Competitiveness*. The Manufacturing Forum, National Academy of Sciences. 1991. 24 p.

[17] Reich, Robert. *The Work of Nations: Preparing Ourselves for 21st-Century Capitalism*. New York, Alfred A. Knopf. 1991. 331 p.

REGULATORY POLICIES AND INTERNATIONAL COMPETITIVENESS[*]

Government regulation — whether at local, state, national, or supranational levels — influences market behavior and affects the ability of firms to compete within a market or across international markets. Government regulation is an inherent aspect of the laws that, among other things, protect the health, welfare, and safety of citizens; provide for the prudential operation of businesses; or protect the environment and consumer interests. Most businesses operate within one or more overlapping regulatory regimes. Changes in regulation frequently require some form of adaptive response by firms. Increasingly, trade negotiations are likely to focus on regulation as a source of trade friction, especially where regulatory regimes are perceived to be diverging. The United States and the European Community (EC) appear to be taking different paths when it comes to the question of regulation. The Commission of the European Communities (EC Commission) contends "that divergence in regulation between the United States and the European Community causes problems to firms engaged in transatlantic trade and investment."[18] The global orientation of the U.S. economy suggests that barriers arising from diverging regulatory systems poses certain dangers for the United States and the international trade system.

THE EUROPEAN COMMUNITY

In 1985, the EC Commission published a White Paper[19] on economic integration by 1992 (EC–92) that proposed a massive reworking of the rules that most clearly affect the way economic behavior is structured and regulated in the European Community. Two of the main goals proposed in the White Paper were the elimination of barriers to economic activity at the national level (deregulation) and the creation of new rules governing economic behavior at the Community level (re–regulation). In agreeing to the EC–92 program, the twelve EC member states agreed to surrender some of the sovereignty they had previously exercised in favor of a new framework for regulating business and economic activity.

Many observers have noted that EC–92 appears to be a massive exercise in deregulation. There is a widespread perception that the member states will no longer impose intrusive rules and regulations within their own borders. This view is only partly correct. EC–92 will not eliminate all regulation by member states, but will mitigate anticompetitive effects or market inefficiencies where local regulation continues (at the level of member states, including all regulatory sub–units within a member state) by requiring mutual recognition of the regulations of other members and, when necessary, bolstering mutual recognition with common Community rules. This approach will lead to the creation of a unified EC–wide market in which firms will continue to be regulated by their home country (the country in which the company is based or headquartered). The EC wants to foster a "competition among rules." Two areas that are subject to regulation — financial services and technical standards — provide excellent illustrations of the changes that are occurring in EC regulatory practices.

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[*] Prepared by Glennon J. Harrison, Specialist in International Trade and Finance, Economics Division.

[18] Avery, Graham. *Business Regulatory Concerns: How Can the United States and the European Community Deal With Them More Effectively?* Paper for the America–European Community Association's U.S./EC Business Advisory Group. December 1, 1990. Avery is a Director in the Commission's Directorate–General for External Affairs.

[19] Commission of the European Communities. *Completing the Internal Market: White Paper from the Commission to the European Council*. COM(85) 310 final. June 14, 1985.

EC–92 and Banking

The area of financial services provides one of the most important examples of the new European Community approach to regulation. This approach is based on two principles: mutual recognition and home country control. The Second Banking Directive, which takes effect on January 1, 1993, establishes an EC–wide framework (based on the mutual recognition principle) for regulation of the banking sector. The most important element of mutual recognition is the right of establishment and freedom to provide services in other member states for all legal banking institutions. Other elements of the common EC–wide framework include a single banking license, a list of permissible activities, and harmonization of essential supervisory standards. The directive also requires each member state to establish its own regulations (home country control) for supervision of credit institutions.[20]

The basic principle of the EC approach to banking and other financial services (insurance and securities) is that "any credit institution duly authorized in its country of origin should be allowed to take up establishment and offer its services anywhere in the Community without requiring further authorization in the other Member State(s) concerned."[21] A broad range of activities will be permitted under the single banking license, although any country may restrict the range of activities in which its own banks may engage. Those states that have more restrictive rules may be forced to liberalize to ensure the competitiveness of their banks. The EC approach recognizes that the rules of member states may conflict and thus interfere with the efficient functioning of markets. The EC approach to regulation encourages "competition among rules" — an approach that should guarantee liberalization of regulations by member governments, if only to ensure that home country financial institutions are competitive across the European Community. Because some member states (Germany, the Netherlands) have "universal banking" systems, the dynamic of reform in EC financial services is heavily weighted toward this liberal outcome.

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[20] Grilli, Vitorio. Financial Markets and 1992. *Brookings Papers on Economic Activity*. 1989:2. pp. 312–13.

[21] European Community. *The European Financial Common Market*. European Documentation Series. April 1989. p. 29. For more information on the EC plan for financial services, see: General Accounting Office. *European Community: U.S. Financial Services' Competitiveness Under the Single Market Program*. GAO/NSIAD–90–99. May 1990.

EC-92 and Technical Standards

The European Community approach to technical standards is also based on the concept of mutual recognition.[22] Where necessary, however, legislative harmonization — through EC directives — may be required to establish "essential requirements," which include human health or safety and environmental and consumer protection. Where national standards go beyond these essential requirements, the principle of mutual recognition obtains. Products that comply with a common European standard or that meet a recognized national standard (i.e., one set by an EC member state) must be allowed to circulate freely throughout the Community.[23] EC officials have made four major points about their approach to technical standards: (1) the aim is to foster deregulation and offer manufacturers more choice as to how they comply with standards; (2) harmonization is designed to eliminate conflicts in national legislation that is aimed at protecting safety and health in the EC member states; (3) in most cases the EC is no longer attempting to tell manufacturers how to build a product; and (4) the new approach will permit no discrimination among products based on their origin.[24]

As in the case of the financial services sector, the European Community is attempting to create a broad framework for regulation, while limiting the ability of, and, more importantly, the incentive for member states to impose a higher level of regulation than necessary. The use of mutual recognition as a fundamental principle should create competitive opportunities within the market place and, at the same time, lead to the adoption of more liberal rules across Europe as each country seeks to set rules that are at least no less favorable to their own firms.

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[22] For more information, see: Commission of the European Communities. *Completing the Single Market: The Removal of Technical Barriers to Trade Within the European Community — An Introduction for Foreign Businessmen*. January 8, 1990; Commission of the European Communities. *Commission Green Paper on the Development of European Standardization: Action for Faster Technological Integration in Europe*. COM(90) 456 final. October 8, 1990; Winter, Audrey et al. *Europe without Frontiers: A Lawyer's Guide*. Washington, Bureau of National Affairs, 1989.

[23] Differences in technical standards among member states will pose problems that the application of the "mutual recognition" principle will not resolve. The main difficulty is consumer acceptance of products that do not meet national standards but which can be sold because they do meet the standards of another EC country. The EC Commission has noted that "National standards tend to shape customer preference for products. Important customers in national markets, such as government agencies, reinforce this effect by favoring national standards in public procurement." *Commission Green Paper on Standardization*, p. 10.

[24] Winter, Audrey et al, p. 72.

THE UNITED STATES

Like the European Community, the United States has also altered its approach to regulation. The Carter and Reagan Administrations, in particular, opposed what they believed to be excessive regulation by government. Unlike the EC, deregulation in the United States has not been accompanied by any systematic attempt to re-regulate by establishing a common framework (such as mutual recognition) at the federal level. Furthermore, although some significant industries have been deregulated to a greater (airlines) or lesser extent (telecommunications and trucking), numerous industries have not been affected significantly by deregulation because Federal laws have maintained existing regulatory regimes (e.g., banking) or because States also (perhaps increasingly) exercise regulatory control over economic activity (e.g., banking, insurance, trucking, and mergers and takeovers).

In the introductory textbook, *Economics*, Lipsey et al. note that, while fears of "catastrophic, destructive competition" have largely faded, "if belief in destructive competition survives today, it is mostly in the fear of *foreign* competition with traditional American industries. Indeed, the view is widespread that the regulation of American industries is an important barrier to their competition in what are increasingly world markets."[25] This view that regulation reduces the competitiveness of American industry in world markets remains prevalent.[26] Within this view, several points about regulation in the United States can be made. The first is that overlapping and contradictory spheres of regulation exist between the Federal and State levels and from State to State.[27] The second is that single

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[25] Lipsey, Richard G. et al. *Economics*. Seventh Edition. New York: Harper & Row, 1984. p. 314.

[26] Many observers point to lax regulation elsewhere as a source of potential competitive advantage; in the debate over the U.S.–Mexico Free Trade Agreement, lower environmental and worker safety standards have been frequently mentioned by opponents of "fast track" authority. It is argued that higher levels of *social* regulation in the United States place U.S. industry at a competitive disadvantage and will lead to the destruction of affected industries and jobs.

[27] Examples are banking and technical standards. For a detailed discussion of limitations on banks, see: U.S. Library of Congress. Congressional Research Service. *Geographic Expansion of Banks: Laws Restricting Bank Growth Across State Lines and Within States*. Report No. 91-119, by M. Maureen Murphy. Washington, 1991. With respect to technical standards, Federal, State, and local authorities enjoy a considerable degree of autonomy in developing standards and account for 57 percent (50,300) of all U.S. standards, while more than 600 private standards-setting bodies account for the remaining 43 percent (38,700) of U.S.

(continued...)

industries are frequently regulated by a numerous bodies at both the Federal and State levels. Many have suggested that this is especially true in the case of the U.S. financial services industry with its host of regulators. Third, as markets have become increasingly global, Federal and State laws and regulations have not necessarily been readjusted. Once again, the U.S. financial services market is not integrated, and it has been suggested that this is a serious source of future weakness for a major U.S. industry.

MANAGING CHANGE

Regulatory regimes differ from country to country because of social, cultural, political, and economic differences. In international trade relations, one way of dealing with legitimate differences has been to grant third countries "national treatment," that is, treating third country businesses no less favorably than any domestic business. In recent years, national treatment has been coupled with the idea of "effective market access" as a measure of how open an economy is to competition from abroad. In part, this appears to be a response to widely divergent systems where normal rules of international trade do not appear to guarantee competitive opportunity. The increasing use of a restricted form of national treatment is one possible way of levelling the playing field. However, it may be a second–best, or even third–best, solution if it lessens the chances for achieving greater compatibility among regulatory regimes at the international level.

Where regulatory regimes are undergoing rapid change (as in EC–92), the effects on the market and domestic and foreign competitors may be great. The dangers to the international trading system of such changes arise not only from new, unintended barriers to trade, but also from the increasing incompatibility of regulatory systems among major trading partners. The European Community has adopted a new approach to regulation that may serve it and the international trading system well. However, growing differences between the U.S. system of regulation and the EC system may cause serious trade and investment problems. Demands for effective market access should not become a substitute for understanding that legitimate differences may exist among the regulatory regimes. Similarly, it could be argued that legitimate differences should not necessarily be allowed to stand in the way of the elimination of systemic conflicts among the regulatory regimes of major economic partners.

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[37] (...continued)
standards. The absence of coordinated standards–setting activities in the United States, and the limited role of the federal government in international standards development activity have raised questions how open the U.S. market may be and about the international future competitiveness of U.S. exporters in international markets. See: U.S. Congress. House. Committee on Science, Space, and Technology. *International Standardization: The Federal Role*. Committee Print. Washington, U.S. Govt. Print. Off., 1989.

ANTITRUST LAWS AND U.S. COMPETITIVENESS*

Part of the on-going debate on U.S. international competitiveness has focused on current U.S. antitrust laws. Many argue that current antitrust statutes undermine U.S. international competitiveness by preventing U.S. firms from combining resources for various activities such as joint production ventures. Because many high technology projects require a substantial capital investment and often don't realize returns until many years later, firms are often reluctant (or unable) to engage in such projects. U.S. antitrust laws (which attempt to prevent firms from obtaining a monopoly in the domestic market and engaging in other anti-competitive practices), are seen as impediments to technical innovations because they prevent U.S. firms from combining resources necessary to obtain develop and produce new technologies. In addition, it is argued that antitrust laws prevent U.S. firms from concentrating their resources to obtain the economies of scale necessary to meet the challenges posed by international competitors (which are often regarded as nothing more than government-sponsored monopolies).

The purpose of antitrust laws is to control the exercise of private economic power by preventing monopoly, punishing cartels, and otherwise protecting competition. The overall goal of antitrust is to increase consumer welfare by assuring that markets remain open to entry and that output can expand — thus maximizing national wealth.[28] However, in practice, antitrust laws could either promote or impede competition. By preventing monopolies, price-fixing arrangements, and other forms of unfair competition, antitrust laws can promote lower prices and greater consumer welfare. On the other hand, antitrust laws could result in higher prices by limiting the ability of firms to combine resources in order to achieve economies of scale.

An added dimension results from the issue of innovation and international competitiveness. Many high technology products require substantial capital and technical expertise which cannot be obtained by any one firm. Not only can high technology product improve a nation's international competitiveness, it can also result in other beneficial spin-offs, such as new technical innovations and inventions, which can ultimately improve productivity and living standards. Here again, antitrust laws may either promote or impede technical innovations and international competitiveness of U.S. firms.

ANTITRUST LAW ON JOINT VENTURES

Joint ventures themselves are not considered to be automatic violations of antitrust law, but are subject to challenges by both the Government and private parties. In assessing the "legality" of a joint venture under antitrust statutes, the courts can utilize one of two different criteria — the "per se rule" and the

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*Prepared by Wayne M. Morrison, Analyst in International Trade and Finance, Economics Division.

[28] Gellhorn, Ernest. *Antitrust Law and Economics In a Nutshell*, 1986, p. 1.

"rule of reason." The per se criteria is used to determine whether or not the conduct examined is an automatic violation of antitrust laws. The rule of reason criteria attempts to assess the competitive effect of the joint venture's activities on relevant markets and to weigh the pro-competitive effect versus the anti-competitive effect.[29]

Critics charge that the court's use of two different criteria adds uncertainty to the legality of possible joint ventures, and hence often acts as a barrier to their establishment. While the Justice Department has never challenged a joint venture as a "per se" (or automatic) violation of antitrust laws, nor have the courts ever ruled that a joint venture was a per se offense, it is argued that many businesses "perceive" that joint venture activities might be challenged under the per se rule or held by the courts as an automatic violation. An additional concern over antitrust laws is the awarding of treble damages to plaintiffs in antitrust suits. Many argue that this is too harsh, that it encourages trivial private law suits, and that it significantly increases the financial risks of a joint venture. Finally, critics charge that the rule of reason criteria is too vague, provides little guidance to businesses in determining what types of joint activities are legal, and often results in courts engaging in a complicated and prolonged investigations into the market effects before making a ruling.[30]

The Bush Administration has indicated its support for changes in antitrust laws. On March 7, 1990, President Bush announced his support for legislation "to reduce the antitrust uncertainty that may discourage joint production ventures."[31] The proposal included provisions to exempt certain joint production ventures from treble damages and requiring the courts to use the rule of reason criteria when judging the legality of a joint production venture. Several bills to reform antitrust laws on joint production ventures were introduced during the 101st Congress, and several have been introduced in the 102nd Congress.[32]

ANTITRUST IN A WORLD MARKET

Many economists and policymakers argue that antitrust laws are antiquated and should be reformed to reflect the fact that competition exists not only in domestic markets but throughout the world. The original antitrust laws were enacted to promote competition at a time when competition was almost totally national in scope. It was argued that ensuring competition among several firms would result in the greatest gains for the American consumer and in market efficiency. Today, however, competition is both national and international in scope. According to the Commerce Department, nearly 75 percent of all industries face competition from foreign imports. Hence many argue that antitrust law should be reformed to reflect that U.S. firms must compete in an international market. Some have argued that the courts should not look at market concentration of an industry in the U.S. market, but at the concentration of that industry in the world market. This world market view holds that even concentrated markets in the U.S. (such as the U.S. auto industry) are competitive because of the tough competition posed by foreign firms. If a domestic industry attempted to act as a monopoly and charged monopoly prices, foreign firms would rush into the market (to capture part of the monopoly rents) and hence would force prices back down. U.S. firms, so the theory goes, understand this, and hence price their products competitively.[33]

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[29] For an discussion on U.S. antitrust law, see: U.S. Library of Congress. Congressional Research Service. *The Impact of U.S. Antitrust Law on Joint Activity by Corporations: Some Background*. Report by Janice E. Rubin. Washington, 1989.

[30] Piraino, Thomas A. Reconciling the Per Se and Rule of Reason Approaches to Antitrust Analysis. *Southern California Law Review*, Vol. 64, March 1991, p. 690.

[31] *International Trade Reporter*, March 8, 1990, p. A-13.

[32] Many of these proposals would extend similar antitrust exemptions to joint production ventures which were granted to joint research and development ventures under the Co-operative Research Act of 1984.

Concern has been raised that antitrust laws have discouraged U.S. firms from consolidating, coordinating, and combining resources to meet stiff international competition. As a result, it is alleged that antitrust laws have contributed to the decline of basic U.S. industries, an increase in the trade deficit, and a general loss of international competitiveness — even for U.S. high–technology firms. This concern over foreign competition stems largely from the belief by many that Japan, Western Europe, and other nations are heavily engaged in promoting an "industrial policy" by targeting industries (especially high tech) for assistance to enable them to become internationally competitive. The type of assistance offered by foreign governments ranges from financial aid and low cost loans, to technical advice and assistance, to exemptions from domestic antitrust laws. Critics charge these policies give foreign firms an unfair advantage, and that they threaten U.S. predominance in several high–tech fields such as supercomputers, robotics, and aerospace technology, to name a few. Many policymakers have argued for reform of antitrust laws to enable U.S. firms to join forces to obtain greater economies of scale in order to compete internationally.

On the other hand, supporters of government regulation claim that antitrust laws are being used by big business as a scapegoat for U.S. competitiveness problems. First, it is argued that the loss of international competitiveness of U.S. firms is more the result of poor performance by U.S. corporations than the result of antitrust laws. Low investment in research and development, lack of investment in plant modernization, and short–sighted policies, are examples of corporate shortcomings. Second, many argue that the high trade deficits have been the result of Federal government dissavings (i.e., the budget deficit), rather than from the existence of antitrust laws. The Federal Trade Commission (FTC) examined the effects of antitrust laws on U.S. competitiveness and found no link between the size of the trade deficit and U.S. antitrust laws.[34] In addition, many argue that large firms do not necessarily achieve large economies of scale or are necessarily more internationally competitive than smaller firms.

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[33] In practice, this may not always be the case since foreign firms may face non–price barriers to entry into the market. For example, the voluntary export restraint agreements have limited imports of foreign cars, allowing U.S. domestic firms to increase auto prices.

ANTITRUST AND INNOVATION

The traditional view of antitrust held that competition among several firms would cause firms to offer goods at the lowest possible price. In this way consumer welfare and economic efficiency would be increased. However, this static model fails to take into consideration the extensive effects that innovations can have on productivity, economic growth, and living standards. Technical change and innovations often involve large spillover effects for society as a whole. They can provide consumers with new products, or existing products at lower cost, and can enable firms using the innovations to become more competitive. Yet, economists differ over the best market structure in which to obtain the highest level of innovation at the maximum gain to efficiency and consumer welfare. Some economists argue that in a highly competitive market, firms are hard pressed financially, and have very little profits which can be devoted to research and development and producing new products. Thus, some argue that it may be preferable to maintain a market structure which is less than perfectly competitive.

Joseph Schumpeter argued that most advances in innovation and technical change came from large corporations in imperfect competition. Because such firms operate in an oligopoly environment, it was theorized that they could devote a much greater amount of their resources to research and development, and would be more likely to assume the risks. The crux of this argument goes back to the discussion of market efficiency and how to increase consumer welfare. In some cases it may be appropriate to allow (perhaps even encourage) concentration within an industry if the result is to increase the aggregate amount of innovation (than would exist in a more competitive environment) which will lead to advances in technology and innovation. A concentrated market may result in some consumer welfare and efficiency losses (because of less competition within that industry). However, the gains to consumer welfare and economic efficiency resulting from new innovations may far exceed those losses. This was belief was advanced by J.K. Galbraith, who argued that large firms were the "almost perfect instrument for inducing technical change."[35]

While economists concede that a significant amount technical advances have been achieved by large firms, some cite ample evidence that small firms have come up with important inventions as well. One study performed by John Jewkes found that, of the most important inventions of the 20th century, less than half came from the laboratories of large corporations. Thus, while a strong case can be made that bigger is better in terms of developing new technology and innovations, the evidence to date is inconclusive that this is always the case. Critics warn that allowing firms (through mergers or joint ventures) to gain a large market share may lead to anti–competitive practices which, in the long run, may harm the economy. Thus, while market concentration in the beginning may lead to new innovations and lower prices (due to economies of scale), smaller firms could be forced out of the market. Eventually, large firms might gain monopoly power and raise prices. And without the threat of competition, a monopoly firm might have less incentive to develop and produce new innovations. Hence, in the long run, market concentration could result in greater market inefficiency and less innovation than under a more competitive environment. Finally, while several small firms may not be able to develop the economies of scale obtainable if such firms were combined, the incremental value of technical innovation from each firm should not be overlooked. That is, the sum of the contributions to innovation from each independent firm may be greater than the amount of innovation which could be obtained from combining the resources of all these firms into one company.

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[34] Federal Trade Commission. *International Competitiveness and the Trade Deficit*. May 1987. p. XV.

[35] Samuelson, Paul, and William Nordhaus. *Economics*. 12th Ed. p. 541. Quoted from *American Capitalism*, p. 51.

CONCLUSION

Concern over U.S. international competitiveness has led to an examination of antitrust laws. Many believe that antitrust reforms will help U.S. firms become more internationally competitive. Others fear that loosening antitrust will lessen domestic competition and will have little effect on the ability of the United States to compete internationally. In examining proposals to revise antitrust laws, U.S. policymakers will need to balance the goal of promoting U.S. international competitiveness with the goal of maintaining competition in the domestic economy in a way which maximizes (to the extent possible) consumer welfare and economic efficiency. Likewise, policies to encourage greater cooperation among firms to enhance technical innovation should not come at the expense of discouraging innovations by smaller firms. Finding these happy mediums, however, will be very difficult due to the fact that market outcomes, especially in a rapidly changing international market, are extremely hard to predict.

[ERRATA]
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ERRATA for JCS-6-91

On page 14, at the beginning of the first sentence of the last paragraph, delete "For example,".

On page 16, the bold side heading should read: ***Growth of real per capital GDP.***

On page 32, in Table 7, Canada's 1980s number should be 9.9, instead of 11.7.

On page 75, in Appendix Table 3, Japan's 1988 number should be 16.7, instead of 12.8.

On page 80, in Table 1, footnote 1 should be as follows: "The 1989 data are preliminary."

On page 255, in the fourth sentence of the second full paragraph under item 5., replace "carries with it a" with "is".

On page 271, there should be a footnote 8, as follows: "See sections II.E. and III.D. of this part for a discussion of the treatment of imports and exports under a VAT."

On page 273, in footnote 12, the references should be to "III.D.", instead of III.C.

On page 309, in the last sentence under the sideheading, ***Treatment of employees***, delete the word "may".

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